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**Qualitative Assessment of a Community
College/Business Partnership: BNSF Railroad
Dispatcher Training Program at Tarrant County College**

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**Qualitative Assessment of a Community
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by

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Dissertation

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DEDICATION

To my 8:15 a.m. railfan buddy, George Steidel, for keeping me on track and focused on what's important in life.

And for DUDE – you know why!

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**Qualitative Assessment of a Community
College/Business Partnership: BNSF Railroad
Dispatcher Training Program at Tarrant County College**

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Qualitative assessment of a community college-business training partnership adds depth and detail to the evaluation of the program's success in preparing graduates who meet the expectations of the business partner. It provides colleges and businesses with answers to three common measures of effectiveness:

Student indicator: How well did the program prepare graduates for this job and/or career?

Employer/Business indicator: How do graduates of this program perform on the job? Did the program adequately prepare them for the job?

Instructor indicator: What was the affect of the instructor on the students' perception of the program and their subsequent feelings of preparedness once they were "on-the-job?" How does the instructor affect the perception of program quality?

The value of student/graduate perceptions and business partner's perceptions are critical in assessment of a training program's success. In addition, an instructor's teaching capabilities combined with professional on-the-job experience in the training program's field are essential to community college-business training program quality. Special care must be taken when selecting instructors. Instructors should be included in all stages of program development. The method employed in this study is readily adaptable for assessment of any training program and can also be extended to career and degree programs that produce graduates ready to begin a particular job and/or career (for example, nursing).

Table of Contents

CHAPTER 1: INTRODUCTION TO THE STUDY	1
Introduction.....	1
Statement of the Business' problem.....	3
Statement of the research problem.....	4
Definition of Terms	6
Research Questions.....	7
Assumptions.....	8
Limitations	9
Conclusion	9
CHAPTER 2: REVIEW OF THE LITERATURE AND ITS RELATIONSHIP TO THE STUDY	11
The TCCD/BNSF Partnership.....	11
Community college/business training partnerships.....	12
Institutional Effectiveness	18
The Role of the Instructor in Training Programs	22
Railroad Dispatchers.....	23
The Railroad Dispatcher Certificate Program at TCCD	26
Railroad Dispatchers Job Outlook and Pay	29
Summary	30
CHAPTER 3: METHODOLOGY.....	31
Introduction.....	31
Purposes for Study.....	31
Research Questions.....	31
Biases on the Part of the Researcher.....	33
Participants.....	33
The Data.....	35
Interview Process.....	36
Data Analysis	37
Summary	38
CHAPTER 4: RESULTS.....	40
Introduction.....	40
Why RDCP? Why Become a Dispatcher?.....	40
Experiences in the Program.....	41

Most Valuable Lessons Learned	44
The Instructor and His Instruction Strategies	45
Supervisors' Impressions	50
Other Comments About the RDCP and Dispatching	54
Why the Partnership Works	57
Summary	58
CHAPTER 5: RECOMMENDATIONS, SUGGESTION FOR FURTHER STUDY, AND APPLICATION TO OTHER COMMUNITY COLLEGE/BUSINESS TRAINING PARTNERSHIPS	60
Recommendations - Making the RDCP Even Better	60
Suggestions for Further Study Concerning Dispatcher Training.....	62
Applications to Other Community College/Business Training Partnerships.....	63
Conclusion	70
APPENDIX A.....	72
APPENDIX B.....	73
GLOSSARY	114
BIBLIOGRAPHY	117
VITA	121

Chapter 1: Introduction to the Study

INTRODUCTION

Railroads provide an essential service to this country. Freight is hauled efficiently, rapidly, and in mass quantities by the North American rail system every day. Much of what we buy and many raw materials are transported by rail, including vehicles, coal, grain, chemicals, merchandise, and agricultural products. For the week ending June 22, 2002, a record 142,455 rail containers were loaded, surpassing the previous record set just a few weeks before. Total intermodal traffic (containers and trailers) also continues to grow (United Transportation Union, 2002). Thanks to international trade agreements, international rail traffic in North America is also impressive. For example, over 1300 freight cars per day cross at Laredo, Texas (Laredo Development Foundation, 2002). In some areas of the country, too, such as the Northeast, many passengers are transported by rail. Safely coordinating all this rail traffic is a major concern, especially where passenger trains share the tracks with freight trains. Who coordinates all this rail traffic? The train or railroad dispatcher does.

Dispatchers perform a variety of tasks in order to both keep the trains moving and to keep railroad employees and customers safe. Table 1 lists the major duties of a railroad dispatcher. Mistakes made in dispatching can result in serious accidents and fatalities, such as in the Devine, Texas head-on collision involving two Union Pacific freight trains in 1997 (NTSB, 1998).

Table 1.1 Major Duties and Associated Actions of a Railroad Dispatcher (from Roth, et. al., 2001, 22)

Responsibilities/Duties	Associated Action
Ensure safety of trains and personnel on the track	<ul style="list-style-type: none"> • Apply operating rules • Monitor track use to prevent conflicts or dangerous conditions • Alert engineer and other personnel to dangerous conditions
Ensure that passenger trains meet schedule [under 5 minutes late] and minimize delays when unavoidable.	<ul style="list-style-type: none"> • Clear routes for trains • Identify new route when preplanned route is no longer applicable.
Ensure that other rail traffic gets through according to the prioritization scheme.	<ul style="list-style-type: none"> • Identify route • Clear route
Issue and track train movement and track use authorization (Form D's).	<ul style="list-style-type: none"> • Block track for use by Maintenance of Way/Track Cars/Trains in Dark Territory • Issue Form D's
Control Block Signal on draw-bridges.	<ul style="list-style-type: none"> • Switch rail so that if train runs away it will derail on land and not water
Communicate information to locomotive engineer (e.g. temporary speed restrictions).	<ul style="list-style-type: none"> • Call engineer on radio
Communicate track/signal problems to the trouble desk so that Maintenance of Way personnel can be called in to fix the problem.	<ul style="list-style-type: none"> • Oral communication
Communicate schedule delays and conflicts to the Chief Dispatcher.	<ul style="list-style-type: none"> • Oral communication
In case of emergency coordinate with Emergency Personnel (Police, Fire, etc.).	<ul style="list-style-type: none"> • Coordinate over voice radio and/or telephone

Other responsibilities of the dispatcher are:

- Inform the Chief Dispatcher of situations that might cause train delays or might require action on his part (e.g. if a train crew is about to exceed their time on duty and a fresh crew needs to be located, or if a train engine has a malfunction and a new engine needs to be located).
- Inform locomotive engineer and other personnel of dangerous conditions (such as potential flooding or washouts, vehicles stuck on the tracks, etc.) (Roth, et. al., 2001).

Currently, only one training program, which admits both railroad employees and “civilians,” exists for training railroad dispatchers in the United States. It is located at Tarrant County College District's Northwest Campus (TCCD) in Fort Worth, Texas. This Railroad Dispatcher Certificate Program (RDCP) provides 14 weeks of training – nine in the classroom and the remainder as internship/fieldwork with the railroad that is interested in hiring the student.

The RDCP is the result of a partnership between TCCD and BNSF. This program was previously located at Johnson County Community College in Kansas, but was moved to TCCD soon after the Burlington Northern – Santa Fe Railroad (BNSF) opened their state-of-the-art dispatching center in Fort Worth, Texas, in 1995. In addition to the RDCP, abbreviated dispatcher-training sessions for BNSF corporate management trainees are conducted at TCCD. BNSF employees who are doing a craft transfer, generally from conductor or engineer to dispatcher, also are trained at TCCD. Other railroads also contract with BNSF occasionally to have their dispatchers receive training at the RDCP/TCCD. Please note that this dissertation will only study the RDCP/TCCD program. It is beyond the scope of this work to evaluate other railroad training programs.

STATEMENT OF THE BUSINESS’ PROBLEM

Traditionally, dispatcher candidates were recruited from a pool of tower operators. Local tower operators controlled train movements in local territories that they physically worked in. However, with the advent of modern signal control, it is now possible to centralize dispatching in one location, so the tower operator is no longer needed. A modern dispatcher is often located hundreds or thousands of miles from the territory he/she is responsible for. Since tower operators and most operating

towers are gone, this traditional career pathway to railroad dispatching no longer exists (Spaulding, 2002).

This lack of immediate previous tower experience can present problems in finding new dispatchers. Practically speaking, a dispatcher needs to be familiar with train movements, railroad operations and rules, and especially railroad safety. One possible solution to this problem is to recruit from Trains and Engines (T&E – employees who run the trains themselves), as these people are already familiar with train movements, timing, and safety issues. Someone "off-the-street" or from a railroad clerical job, however, does not have this experience. The TCCD dispatcher-training program allows someone without prior T&E experience the opportunity to compete for a dispatcher job; and it allows the railroad to either (1) hire someone who has been specifically trained in railroad dispatching rules and operations or (2) to economically train a current employee in dispatching.

Again, the emphasis on safety cannot be stressed enough. When dispatchers make errors, people can die (NTSB, 1998). It is essential that dispatcher trainees receive proper training to do their jobs safely and effectively.

STATEMENT OF THE RESEARCH PROBLEM

Assessing a business/community college training partnership should address how effectively the training program is meeting the needs of students and the business partner. Often, however, articles on these programs and partnerships take a “how we did it” approach (see Chapter 2) and rarely, if ever, mention assessment. When assessment is measured, it generally takes the form of quantitative data (such as graduation rates or enrollment data). In addition, the role of the instructor(s) is often mentioned only cursorily. This study will take a more comprehensive approach by

qualitatively investigating empirically how well a training program is preparing its students for a particular job/career. Both the graduates' perspectives and the perspective of the employer/business will be investigated. In addition, the importance of the instructor for the success of a training partnership will be addressed. It is expected that this research will provide valuable insight into these qualitative assessments of effectiveness.

Specifically for this study, it should be noted that railroad dispatching is a stressful and cognitively demanding job in which the dispatcher is responsible for the safety of railroad employees and passengers. It is essential that graduates receive appropriate training and that their supervisors perceive the training program to be effective. Very importantly, too, the business, BNSF in this case, must be satisfied that the training partnership is providing it with well-trained, well-prepared employees. If any of these requirements are not met, the program will not be successful.

More broadly, this dissertation will demonstrate how to collect and use qualitative data that is traditionally not investigated when assessing community college/business training programs. Again, this researcher found no recent articles about community college/business partnerships that addressed qualitative outcomes assessment, and only one article that addressed the importance of the instructor (Woiwod, 2002; see also Chapter 2). In fact, few articles even mentioned assessment and when it was mentioned, it was quantitative (program enrollment numbers, for example) and often brief and incomplete. Most articles took a "how we did it," merely descriptive, approach instead. It is sincerely hoped that this dissertation will encourage the incorporation of qualitative data in outcomes effectiveness assessments and that the important role of the instructor in college/business partnership effectiveness will be recognized more widely.

DEFINITION OF TERMS

A glossary, which contains many of the railroad industry terms that will be used, is provided at the end of this dissertation. Methodology terms will be discussed in Chapter 3 “Methodology.” The terms described below are primarily generic and more related to educational and business institutions.

Community college/business training partnerships come in as many varieties as there are partnerships. The specific partnership studied here was originally developed between Johnson County Community College and then Burlington Northern Railroad (BN) in the late 1980’s. Its primary focus was economic development for the region and the training needs of BNSF (Radakovich, 1998). Currently, the primary focuses of the partnership are:

1. to train dispatchers for BNSF in a cost effective way, and
2. to provide students from greatly varied backgrounds with the skills to acquire a job as a railroad dispatcher (it should be noted that students cannot be guaranteed a job upon completion of the RDCP).

The RDCP itself will be described in more detail in Chapter 2.

Institutional Effectiveness (IE)/Assessment refers to how well a college is accomplishing its mission: its goals, the needs of its students, and the needs of its partners. Indicators of effectiveness are also how legislative bodies, foundations, and other donors to the college measure the college’s success (Alfred, et. al., 1999; Ewell & Lisensky, 1988; Roueche, et. al., 1997). In this study IE will refer specifically to graduates’ perceptions of how well the RDCP prepared them for their jobs as railroad dispatchers. In addition, the viewpoints of the dispatcher supervisors and the RDCP instructor, who is a former railroad dispatcher, will be used to assess IE. Again,

qualitative measures addressing graduates & supervisor's viewpoints and the importance of the instructor to the success of a partnership are rarely if ever mentioned in articles about partnerships. Please also note that assessment may be used interchangeably with IE.

RESEARCH QUESTIONS

Qualitative research based on the grounded theory method will be used to conduct this research. Like many qualitative research methods, the research questions will be generated out of the initial research. However, preliminary questions will address how well the RDCP prepares individuals to be railroad dispatches. Initial questions may include:

- What are the students' and graduates' perceptions of the RDCP?
- What are the RDCP instructors' perceptions of the RDCP?
- What are the RDCP graduates' supervisors' perceptions of the program?
- How do these perceptions compare?
- How can these perceptions be used to make the RDCP even better?
- How can this case study's methods be applied to student assessment of other workforce training programs?

The focus of this particular study will be on student expectations for the RDCP, student perceptions of the RDCP, and how well students' experiences in the RDCP prepared them for dispatching. The goals will be to determine how well the RDCP meets student and employee (in this case, BNSF) needs and to determine what improvements, if any, can be made to RDCP to better train students to be dispatchers.

More broadly, it is the goal of this dissertation to demonstrate that qualitative assessment of a community college-business training partnership adds depth and detail

to the evaluation of the program's success in preparing graduates that meet the expectations of the business partner.

ASSUMPTIONS

The researcher has made several assumptions in conducting this study:

1. The RDCP graduates will be open and candid during the interviews. The researcher will indicate to them that their answers are confidential, will not be traceable to individuals, and will not affect their relationship with the RDCP or their current employment.
2. The RDCP instructor and the BNSF dispatchers supervising the RDCP graduates will be open and candid during their interviews.
3. The RDCP graduates will want to improve the program from which they have graduated. The supervisors will also suggest improvements to the training program, provided they believe improvement may be needed.
4. Other community colleges and businesses interested in forming training partnerships will find this study of interest when it comes time for them to qualitatively assess the effectiveness of their programs.
5. The RDCP instructor, TCCD and BNSF will be interested in using this study to improve the RDCP and the railroad operations management degree.
6. Readers of this dissertation will be at least somewhat familiar with community college business partnerships and also assessment, since studies, comments, editorials, and dissertations on these topics abound in the community college literature.

LIMITATIONS

This study is limited in that this is the only formal railroad dispatcher training program in the United States that allows “civilians” (non-railroad employees) entrance. However, this is also a strength of the study, as the RDCP is an unusual program fulfilling a specific need.

The researcher has an affinity for railroads. She will have to be careful to not let this interest get in the way of the assessment of the program. In addition, the researcher is not an expert in dispatcher training, nor is she a railroad dispatcher. However, she also realizes how important it is for dispatchers to be trained safely and hopes that this study may further contribute to that end. Because of this, she will be on guard to represent accurately the views of the graduates, BNSF dispatchers, and RDCP staff at all times and to have them clarify anything she does not understand, particularly as it relates to training dispatchers, supervising dispatchers, or being a dispatcher.

Personal bias could also be a limitation. However, the researcher has consulted various texts on qualitative research (Bogdan & Biklen, 1998; Emerson, et. al., 1995; Fontana & Frey, 1994; Spradley, 1979; Strauss & Corbin, 1998) and has been reminded by them and in her research classes time and again to be on guard for personal bias. The researcher will strive to do this and be aware of any biases during the course of this research.

CONCLUSION

Business/community college partnerships can benefit all involved, especially the students/graduates who receive/received training. The RDCP is the result of a partnership between TCCD and BNSF. It is the only program of its kind in the United States and, as yet, no student effectiveness/assessment studies, as defined in this

chapter, have been conducted on it. This study will analyze graduates' perceptions of how well the RDCP trained them to be railroad dispatchers. It will also study the perceptions of the RDCP graduates' dispatcher supervisors. It is believed that this study may provide a framework for other community college/business partnerships that are interested in assessing the effectiveness of a training program. Furthermore, the instructor's contribution to the success of a training program will be investigated. Again, in this researcher's experience, the instructor's role is often glossed over or absent in recent articles and studies on training partnerships (see Chapter 2). The RDCP is a well-done program, which should be supported for its own sake and as a model for other similar programs that train both already experienced in the field employees as well as individuals from other unrelated fields of work.

Chapter 2: Review of the Literature and Its Relationship to the Study

Why the RCDP was developed will be stated first. This will be followed by an overview of community college/business training partnerships and program effectiveness assessment as relates to this research. The final part of the chapter will provide general background concerning railroads, railroad dispatchers, and the RDCP, as this will be unfamiliar to most readers.

THE TCCD/BNSF PARTNERSHIP

Why would a business and a community college form a partnership? There are many reasons and these may include, but are not limited to, one or more of the following:

1. to encourage economic development in the region,
2. to provide the business with affordable, convenient, customized, and quality employee training opportunities,
3. to fulfill part of the community college mission,
4. to afford the college revenue,
5. to provide students with a chance to upgrade their skills, and
6. to provide an alternative pathway to careers in which traditional pathways no longer exist.

(Craft, 1995; Eisen, 1997; Kantor, 1994; Kisker, 2003; Lui, 1997; Nichols, 1996; Roueche, et. al., 1995; Spangler, 2002).

The RDCP partnership was formed for many of these reasons. Two of these factors, encouraging the local economy and producing new non-taxable income for the college seem to have been particularly important to the founding of the RDCP.

JCCC's primary purpose was to encourage local economic development and to provide new non-tax revenue for the college. BNSF wanted high-quality teaching space – a real 'educational' atmosphere – to train its staff at the most reasonable cost to the corporation. (Radakovich, 1998)

The RDCP also provides individuals with no railroad experience with a viable route into a dispatching career. When the program was at JCCC, the goals of both BNSF and JCCC were realized. Currently, JCCC still has a railroad-training program, but the RDCP has been moved to TCCD and is included in TCCD's railroad-training degree program. It remains to be seen if these goals are still being met in the Fort Worth area, as the program is still relatively new there; however, please note that establishing this is beyond the scope of this dissertation. However, the researcher believes that this study will contribute significantly to this end as qualitative data pertaining to program effectiveness will be collected and analyzed for this research project.

COMMUNITY COLLEGE/BUSINESS TRAINING PARTNERSHIPS

Community colleges partner with businesses to provide workforce training. Numerous reports, articles, books, and whole journal issues have been devoted to discussion of these partnerships (see, for example, Kantor, 1994; Kisker, 2003; Maurrasse, 2001; Roueche, Taber and Roueche, 1995; and Spangler, 2002). In her review of this literature, this researcher found that many of the articles, book chapters, etc., take a "how we did it" approach. Establishing community need, raising funds, administrative issues (such as forming the partnership), advertising/marketing the

partnership, and hypothesizing how the partnership is beneficial are well covered. While this is important information and, as such, needs to be reviewed, it is of only limited use.

For the sake of important underlying information, a brief review of this basic literature follows. Craft (1995) encourages businesses and industry to partner with their local community college for the following reasons:

1. community colleges are established in the local community,
2. community colleges have ties to others in the business community,
3. workforce training is part of the community college mission, and
4. community colleges are in the business of education.

Other advantages to partnering with a community college include obtaining a quality education for employees at a reasonable price (Radakovich, 1998) or being able to use college facilities for training if the business does not have them (Lui, 1997; Maurrasse, 2001). Community colleges can also provide training in general job skills, such as critical thinking, teamwork, computer skills, and communication (Craft, 1995; Lui, 1997; Maurrasse, 2001). Indeed, the benefits to businesses that partner with a community college are many. However, it is important to not only form these partnerships, but also to evaluate how well the training program(s) are meeting the needs of students/graduates/employees and the business partner(s):

New indicators of performance are drawing interest and becoming part of the effectiveness question...Colleges are going to be expected to perform, to document their performance, and to be accountable.... (Alfred, et. al., 1999, pp. 1, 3)

Evaluation and assessment should provide not only a quantitative measure of how many students enroll, graduate, etc., but also a qualitative measure of how well graduates are prepared for a job or career. Equally important is the business partner's

perception of the training program's value in providing employees, or potential employees, with the skills needed to be successful on the job. If graduates and business partners do not believe the training program is capable of preparing individuals for that job/career, then they both are unlikely to recommend the program (graduates) or continue with the partnership (the business and community leaders). Then, no matter how impressive the enrollment figures or the graduation rates, etc., the program will be a failure in the eyes of those it was created to serve: students/potential business employees, business employees, the business itself, and the community. This can lead to a training program or partnership discontinuation.

...as colleges rely more on information and support from external stakeholders, they (colleges) will need to supplement traditional academic indicators of performance with other indicators ... Employers will not enter into contractual relationships with colleges that do not meet their quality, cost, and service requirements. (Alfred, et. al., 1999, p. 4)

When assessment outcomes of the partnership are mentioned in the literature, they usually take the form of quantitative data. Irlen & Gullini (2002), for example, devote one paragraph and one sentence of their nine-page article to "student outcomes." The outcomes are:

- having the number one new program in the state for 1998 (the qualifications for this were not defined)
- graduation rates
- placement or upgrades occurring immediately after graduation

No further assessment/evaluation was reported, which this researcher has found to be typical. But wouldn't it be interesting, as well as quite informative, to collect more data on these graduates? The college and/or business could now, over six years after the program's inception, perform a qualitative study such as that presented in this dissertation. The college and business would then have a measure of the long-term

success of the program, as well as possible suggestions for improvements and change. As an extra bonus, “new indicators of effectiveness” (Alfred, et. al., 1999) would be available for accreditation reports, grant applications, alumni fund-raising publications, government reports, etc.

As another example, Maurrasse (2001) devotes an entire chapter of his book to various partnerships at Hostos Community College (HCC), located in the South Bronx, New York City, New York, USA. The trials and tribulations of forming training partnerships at an inner-city college with an ethnically diverse and economically disadvantaged population are discussed at length. So, too, is the importance of the college to local business. For instance, Hunts Point is “... an industrial waterfront section of the Bronx ... (and) is the largest wholesale food distribution center in the world” (p. 169). The Hunts Point Economic Development Corporation (HPEDC) is actively involved in a partnership, the Hunts Point Initiative, with the HCC Business School. Among the initial goals for the initiative were for HCC to assist HPEDC develop a business plan. This included providing HPEDC employees with computer science and computer skills courses at the HPEDC site. Next, the partnership plans to expand the opportunities available to HPEDC employees to include “...a certificate in food management, and an associate degree in food management and distribution” (page 170). This is an excellent example of a community college that has both recognized community needs and also found a way to meet those needs. Much is made of how these types of partnerships can benefit the community (i.e. “Graduates could apply their skills in the local market...” p. 171), but, again, the author does not validate these claims with qualitative or quantitative assessment studies and data. Again, the focus of this chapter, as this researcher found with much of the community-college business partnership literature, was identifying community needs, and then detailing the

subsequent steps involved in forming, and then administrating, the training programs and partnerships.

Indeed, businesses appear to be asking for reliable quality assessment of community college partnerships. In the June/July 1997 issue of *Community College Journal*, Phyllis Eisen, executive director of The Center for Workforce Success with the Manufacturing Institute of the National Association of Manufacturers, listed ten areas that community colleges should focus on to have successful business training partnerships. The first area identified was quality:

Community college programs for industry must meet the same quality challenge that business does every day. New technologies, new processes, and continuous improvement must be a hallmark of the coursework. Old courses need to be redesigned and upgraded constantly and tested in the workplace for value and effect. We hear from respondents that quality drive is not the number one priority in the community college programs geared toward industry. (Eisen, 1997)

The avoidance of formulaic courses and the creation of more responsive ones is a current business need and issue as regards community college partnerships.

Eisen (1997) also suggests several quality indicators that can be used to evaluate a business training program. These indicators include customization, courses that can later be used toward a degree (if the student/employee so desires), and innovation.

Customization refers to the examination of business' short term and long-term goals and the design of programs and courses to match those goals. Such considerations are well covered in the literature (Kantor, 1994; Kisker, 2003; Maurrasse, 2001; Roueche, Taber and Roueche, 1995; and Spangler, 2002). An example of customization that relates specifically to the RDCP involves an innovative new technology, its possible adaptation by BNSF, and, if adapted, its incorporation into new RDCP training. Agilent Technologies recently developed "...an innovative

trackside monitoring system that measures curving performance” of railcars (Agilent Technologies, 2002). Poor curving performance of railcars can result in derailments. This new system relays information on railcar curving performance to railroad dispatchers. Dispatchers can then take steps to get the poorly performing railcar pulled out of service for repair. Therefore, if/when BNSF incorporates this monitoring system, it would be important for RDCP students to receive training with this technology. Such openness, or lack thereof, to customization can also be an important factor in assessing the quality of a particular program.

The existence of academic credit courses as part of a training program can also be an indicator of quality in a business partner’s eyes (Eisen, 1997). In addition to certification, business owners and managers often encourage their workers to earn academic degrees. Employees, on their part, can also desire that their training can or could lead to an earned academic degree. Upon completion of the RDCP, an individual has earned 15 college credits as well as a college certificate. These credits can be applied toward an undergraduate degree at TCCD if the individual so chooses.

“Innovation” is another quality area that Eisen (1997), and others (such as McClenney, 1998) address. Eisen (1992) defined innovation as designing and adapting courses according to the changing needs of the business. Indeed, the railroad-training program (of which the RDCP is a part) was developed and is revised cooperatively on an as-need basis by the college and the business, BNSF (Radakovich, 1998). This revision process is careful to include the RDCP instructor, an experienced dispatcher. McClenney (1998) and a recent thesis by Vandal (2003) also emphasize the importance of innovation to training partnerships. The revision process is an important part of the customization process, just discussed. Again, Eisen (1997) did not address methods for

evaluating the quality of a partnership, as the article was intended primarily only to alert community colleges to workforce development needs.

The main premise of this study goes beyond Eisen's article and the literature discussed. This study emphasizes the importance of evaluation, not just the formulation, plans, and execution of plans, to training partnerships. Indeed, community college "quality" is scrutinized and questioned by many politicians and the general public, who often view community colleges as "second-rate" to traditional colleges and universities. Alfred, et. al. (1999) said, "... (colleges) will need to supplement traditional academic indicators of performance with other indicators..." (p. 4). Qualitative data such as that collected in this study can help meet the increasing requirement for training program evaluation and accountability.

INSTITUTIONAL EFFECTIVENESS

By now, most community colleges are performing some type of customized training activity. Yet...the attempts to evaluate, as opposed to describe, the area of customized activity are still not well developed. (Jacobs & Bragg, 1994)

"Institutional effectiveness" is a current buzzword in community college circles. Legislators, citizens, and other supporters are requiring community colleges to be accountable to the public. Usually, institutional effectiveness refers to how well the college is accomplishing its mission (Alfred, et. al., 1999; Ewell & Lisensky, 1988). Factors studied when assessing institutional effectiveness include: graduation rates, growth, graduate licensure/certification pass rates, and retention (Alfred, et. al., 1999). Unfortunately, "Student – learning – related indicators are not routinely tracked..." (Roueche, et al., 1997, p. 182). Wilson, et. al., (2000) state "...of all the phases of implementing student learning outcomes, community colleges are least involved in

documenting student achievement in ways other than grades or course credit" (p. 57-58). Again, in this researcher's perusal of the literature, she found that most articles, books, and other documents concerning community college/business partnerships omit any careful examination of student outcomes. Most studies are limited to a merely descriptive "how we did it" approach and, at best, give only cursory mention to any qualitative assessment of the program. When assessment is mentioned, it was quantitative (graduation rates, for example) and even these are brief and incomplete.

Furthermore, community colleges themselves do not fit neatly into the traditional measures of effectiveness, such as graduation or retention rates (Roueche, et al., 1997). These measures fail to recognize the unique characteristics of community colleges. The average community college student is female, 29 years of age, and works 30 hours per week; not the profile of the more conventional college student (Dougherty, 1994; Roueche & Roueche, 1993). In addition, the educational needs of community college students may differ significantly from the educational needs of conventional four year college students.

Many community college students are attending to gain specific new skills or to upgrade existing skills so that they can get a job or be more valuable to their employer. Other students need only to complete one or two courses to be applied to a four-year degree elsewhere. Many students may also need developmental education before they can take college-level courses. Then there are those students who can only attend part time for family and/or financial reasons; these students may also 'stop-and-start,' going for a semester then taking a semester off (Brint & Karabel, 1989; Dougherty, 1994; Roueche, et. al., 2001; Roueche, et. al., 1997; Roueche & Roueche, 1999; Roueche & Roueche, 1993; Vaughan, 1995). All these students' needs and behaviors collectively do not match that of the traditional college student. Therefore, traditional means of

measuring effectiveness, such as graduation rates and retention, are not satisfactory methods to determine if a community college is being effective, especially when assessing a training partnership between the college and a particular business (Roueche & Roueche, 1997).

It is important to note that at least two studies regarding student learning outcomes have been published recently (Roueche, et. al., 2001; Wilson, et. al., 2000). One study (Wilson, et. al., 2000) looked generally at 21st century learning outcomes, or core competencies, required for student success in the new global economy. The other, Roueche, Ely and Roueche study focused on the Community College of Denver and how, over a 10-year period, its president, employees and the community helped transform it into a true open-door college for even the most disadvantaged students. Both studies recognize the need to look at student outcomes as effectiveness indicators. However, workforce training programs similar to the RDCP were not specifically addressed. Although, these two studies discussed overall school transformation and what could be done to help all students gain the educational and life skills needed for success, however, these studies are too broad to apply directly to the RDCP, a very specific training partnership. The RDCP, for example, requires students to have had at least 30 hours of college level credit before they are even considered for the program.

Again, a primary part of the community college mission is to meet the needs of its students and its community. Therefore, effectiveness indicators that mirror those needs are better measures of how effective the community college is as a whole (Roueche, et. al., 1997). Workforce certificate and training programs, especially, need indicators of effectiveness other than graduation rates or similar traditional quantitative measures in order to monitor quality. For example, the BNSF/JCCC partnership addressed these specific indicators: economic development impact and affordable

training (Radakovich, 1998 – please refer to this publication for further details). Both of these factors were incorporated into this joint partnership and both are reasonable indicators of a successful community college business training program.

Recently, the American Association of Community Colleges (AACC) submitted a proposal to the U. S. Department of Education and the U. S. Department of Labor regarding new effectiveness indicators for workforce development programs, as part of advocating the reauthorization of the Carl D. Perkins Vocational & Technical Education Act and the Workforce Investment Act. These new indicators take into account both the populations served by workforce programs and the mission of the community college. Program completion, definition by the business and college of desired skills, and customer satisfaction are the three areas recommended for inclusion in effectiveness evaluations (AACC, 2002).

For example, one AACC "program completion" indicator is earning a certificate (RDCP awards a certificate). Another AACC suggested indicator is the inclusion of clearly defined skills that are needed in the local workforce, such as skills identified by a local business (in the case of the RDCP, this was and is done by BNSF). "Customer satisfaction" included surveying current student's satisfaction with the program and assessing how well the training program prepared graduates to do their new job (AACC, 2002). This dissertation, having a qualitative focus, will investigate the "customer satisfaction" indicator, which has not yet been done by the RDCP.

As indicated above, qualitative student needs outcomes such as customer satisfaction and the role of the instructor are rarely included in institutional effectiveness measures, so it is hoped this dissertation will provide a framework for others interested in training program assessment, as well as provide feedback for the

RDCP. Qualitative research based on Grounded Theory (Strauss & Corbin, 1998) will be used for this study (please refer to Chapter 3 for methodology details).

THE ROLE OF THE INSTRUCTOR IN TRAINING PROGRAMS

During this researcher's literature searches, she noted that the instructor's role is rarely emphasized in studies of community college/business partnerships/training programs. It is known, however, that the instructor is a critical component of successful student learning environments (Roueche, Milliron, and Roueche, 2003). Too often, the instructor role is completely overlooked. Instead, authors most typically list only the well-established essentials for successful partnerships (money, administrative and business cooperation, etc.; Spangler, 2002 and Kisker, 2003).

For example, a recent issue of *New Directions for Community Colleges* (Number 119, Fall 2002) was devoted entirely to "developing successful partnerships with business and the community." Included were eight articles, one summary chapter, and one 'for further reading' chapter. Only one of the eight articles addressed the important role of the instructor in creating and maintaining a successful program. Only two presented any outcome data, which was typically brief and quantitative (program completion rates, for example). Just one article emphasized how important the instructor is to program success (Woiwod, 2002); it should be noted that this particular article highlighted a program that was initiated by community college faculty.

In addition, a 2003 review article on this same topic (Kisker, 2003) did not include the instructor as an essential element for a successful partnership. Articles cited previously in this dissertation (Craft, 1995; Eisen, 1997; Kantor, 1994; Lui, 1997; Nichols, 1996) also did not focus on the instructor as an essential element. This

dissertation investigates qualitatively the role of the instructor from both the student/graduates' perspectives, the supervisors' perspectives, and the instructor's perspective. Again, from this researcher's viewpoint, these are unique perspectives and qualitative indicators that are typically overlooked in the general literature about community college/business partnerships.

RAILROAD DISPATCHERS

The RDCP trains individuals for the job of railroad dispatcher. Railroad dispatchers are responsible for the safe and efficient movement of trains and the safety of railroad personnel who are actively working on rail lines (Roth, et. al., 2001). Dispatchers can be equated to air traffic controllers, who "...coordinate the movement of air traffic to make certain that planes stay a safe distance apart. Their immediate concern is safety, but controllers also must direct planes efficiently to minimize delays (two goals which have the innate potential to conflict). Some (controllers) regulate airport traffic; others regulate flights between airports" (US Department of Labor, 2002, p. 1).

Like air traffic controllers, railroad dispatcher's jobs are stressful and require full concentration on the tasks at hand (Roth, et. al., 2001). One railroad dispatcher is responsible for a "territory" often covering hundreds of miles of track. Usually, the more experienced dispatchers are assigned to the most difficult territories, which often have heavy traffic and several main lines. The BNSF job descriptions for railroad dispatchers can be found in the Appendix. Also, Figure 1 in Chapter 1 lists the major duties of a railroad dispatcher. Two of these major duties are very similar to that of the air traffic controller's duties and, therefore, also have the innate potential to conflict: the regulation of train movements such that (1) railroad personnel remain safe and (2)

the trains run on time. In sum, a dispatcher is "responsible for allocating and assigning track use, ensuring that trains are routed safely and efficiently, and ensuring the safety of personnel working on and around railroad track" (Roth, et. al., 2001, p. xi). Safe operations, as with air traffic controllers, are a primary concern and are emphasized greatly.

An example of one important task that dispatchers perform is issuing "Form Ds." A Form D allows, for instance, a Maintenance of Way crew to perform repair work on a section of track in a territory. The work crew supervisor notifies the dispatcher of the crew's intent to occupy a specific section of track. After checking to make sure that train traffic will not be unduly interrupted by the maintenance work, the dispatcher then relays important information and details, such as the time the track will be occupied and which specific sections of the track will be occupied, to the work crew. The work crew supervisor copies this information onto a Form D. When the information transfer is complete, the work crew supervisor reads the completed Form D back to the dispatcher, who checks for and corrects any errors. The work crew is then allowed to occupy that section of track, and the dispatcher keeps trains from running on that track and also informs other involved personnel, such as train engineers and conductors, of the work crew's presence. When the Form D expires, the work crew must notify the dispatcher and vacate the track. If the work is not complete, the dispatcher may issue another Form D, depending on the situation. In any event, the work crew is NOT allowed to occupy that section of track *after* the Form D expires. In upstate New York, when Conrail was still the major railroad in the area, one could regularly overhear dispatchers issuing Form Ds simply by monitoring the appropriate railroad frequencies on a scanner.

When dispatchers make mistakes, lives can be lost. In Devine, Texas, 1997, on the Union Pacific Austin Subdivision, a head-on collision occurred between two freight trains. Four people were killed; two train crewmen and two transients who were hitching a ride on one of the trains. Upon investigation, the National Transportation Safety Board (NTSB) cited dispatching issues as the probable reason for the crash. An inexperienced dispatcher (under one year of experience) issued a conditional track warrant, which required one train to stay in a siding until a second train had cleared it. Unfortunately, the dispatcher did not state that the train crew was to wait until the second train was clear. When the train crew read the warrant back to the dispatcher, the dispatcher also failed to notice the omission. The head-on collision resulted (NTSB, 1998).

Furthermore, the NTSB found that the Austin subdivision's busy territory was probably too complex for the inexperienced dispatcher:

Such territories often pose operational challenges to even the most experienced dispatchers. Veteran dispatchers reported that under conditions of high-operating demands, less experienced dispatchers may issue track warrants (like Form Ds) while mentally or physically attending to their next task and not concentrating on the read-back communication from the train crewmembers. (NTSB, 1998)

It is imperative, therefore, that potential dispatchers, especially those without prior direct experience running trains (T&E service), receive the proper training if they are to be effective and safe dispatchers. One goal of the RDCP is to help provide the initial training needed to become this type of dispatcher. This is accomplished by training on dispatching simulators using current software and equipment. RDCP students also participate in rigorous dispatching scenarios, which are analyzed and critiqued at the end of the scenario.

THE RAILROAD DISPATCHER CERTIFICATE PROGRAM AT TCCD

The TCCD RDCP was originally part of a partnership formed between Johnson County Community College (JCCC), in Kansas, and Burlington Northern Railroad (now merged into Burlington Northern Santa Fe Railroad or BNSF). A program offering an Associates Degree in Railroad Operations was devised. Students had a choice of two career options: railroad conductor or railroad dispatcher.

BNSF moved its Network Operations Headquarters, including most of its dispatching, to Fort Worth, Texas in March 1995. Once the dispatching center was relocated, it was decided that the RDCP should be moved as well. TCCD is now partnering with BNSF to offer the RDCP as well as customized dispatcher training modules in Fort Worth.

In Texas, the RDCP had to follow the rules and laws that all continuing education does in Texas. Credit-bearing courses need to go through the Texas Board of Education to be approved. Eventually, this process was completed and now TCCD offers an Associate's Degree in Railroad Operations Management; the RDCP is a credit-bearing program that is the fourth semester of this degree. Unfortunately, this railroad dispatching option is the only one available for students in this Associate's Degree program. TCCD administrators would like to establish a conductor's training program, as exists at Johnson County Community College in Kansas, to provide students with another option. The RDCP can be taken without having enrolled in the associates degree program; however, RDCP will only admit students with 30 hours of college level credit.

The RDCP itself is a 15-week program. Students spend nine weeks in classroom instruction and six weeks doing field training in various locations across the

United States. While in the classroom, students take five courses, totaling fifteen credits, as follows:

BMGT1270	Introduction to Railroading	2 credits
BMGT1268	Railroad Dispatcher Practicum	2 credits
BMGT2572	Rules, Regulations, & Safety	5 credits
BMGT2172	Rules Simulation	1 credit
BMGT 2473	Traffic Control	4 credits
BMGT 2188	Internship	1 credit

RCDP is an intensive and rigorous course of study. In the beginning, students learn the basics about railroading: history, purpose, current issues, etc. Next, in BMGT 2572 Rules, Regulations, & Safety, students must master all the rules and regulations associated with train operations, including maintenance of way operations and the train dispatchers' manual of policies and practices for safe and effective train movement and maintenance operations. To pass, students must score a 90% or above on the final exam for this class.

In BMGT 2172 Rules Simulation, students learn to apply the policies, rules, and regulations in a simulated environment. This class teaches students how to use Centralized Traffic Control (CTC) and Computerized Track Warrant Control in the safe dispatching of trains. Problem-solving and critical-thinking skills are also emphasized and required to master this course. These advanced skills and the information learned are applied again when the student takes BMGT 2473, Traffic Control, which also requires a 90% to pass.

It is important to understand that students and graduates experience two basic phases in the class: first, learning the rulebook, the "G core rules" (general operating rules) and the TDM (train dispatchers manual); and second, the application of those

rules and concepts to real-life situations in simulated dispatching scenarios. Additionally, some students and the instructor described a field trip to Alliance Yard (a BNSF rail yard in Fort Worth, Texas). Many students went on “road trips” once they had been hired as interns by BNSF. These trips allowed them to see physically the territory(ies) for which they were dispatching. They also directly experienced what it is like for train crews, maintenance of way, and other railway workers who are “out in the field” working with the trains and track, as opposed to what is behind a desk as the dispatcher usually is.

Finally, when the fifteen hours of class work are complete, the student will interview with any railroads that may be interested in hiring them. No one is guaranteed a job. Once the student and a railroad have selected each other, the student does the internship/fieldwork credit with that railroad. In the case of BNSF, the internship and fieldwork take about nine weeks. Fieldwork includes riding a train over a territory and otherwise getting familiar with a territory, observing and interacting with veteran railroad dispatchers, and being introduced to the many challenges faced by a working railroad dispatcher. Most students are hired by the railroad with which they intern. Metrolink, a commuter railroad in California, and BNSF have been the primary employing railroads so far that have hired RCDP graduates (Spaulding, 2002).

It should be noted that the Director of the Railroad Operations Department at TCCD and the instructor for the RCDP have been and are, respectively, either former or current railroad dispatchers. Currently, the RCDP does not have a formal director due to the retirement of Mr. Spaulding, the previous head.

RCDP is the only formal dispatching program in the United States that accepts non-railroad employees. It runs during the fall and spring community college semesters. A maximum of fifteen students is set for each semester; however, typically,

there are only seven or eight students. Students must formally apply to the program to be admitted. The ideal candidate is between 30 and 35 years of age, has more than two years of college, and has some supervisory experience, a good work ethic, and good communication skills. Students must also pass an aptitude test to enter the program.

RAILROAD DISPATCHERS JOB OUTLOOK AND PAY

BNSF's headquarters in Fort Worth, Texas, employs about 5000 people. Fort Worth itself, historically and at present, is a railroad town, being a major rail hub to which several Class 1 railroads have access. The new BNSF dispatching facility in Fort Worth houses 470 dispatchers and other personnel, for a total of about 870 people, all essential for coordinating train movements and railroad operations. The dispatching building itself was made to withstand tornado winds and has numerous backup systems in case of power failure or other technical issues. Dispatching here is predominantly “paperless,” since the latest computer dispatching technology is utilized (BNSF, 2002).

According to Mr. Spaulding, retired and former Director of TCCD's Railroad Operations Department, TCCD, the job outlook for railroad dispatchers is good. Due to Railroad Bill 30-60, many dispatchers will retire in the next few years. At BNSF, for example, approximately 50-55 new dispatchers are needed each year. It is estimated that approximately 20% of the new hires for BNSF in the near future will be from the RDCP. The other 80% will be present BNSF employees who have completed the dispatching craft transfer program (similar to the RDCP but customized for current railroad employees), which is also taught at TCCD by the RDCP instructor.

A railroad dispatcher's starting salary is between \$45,000 and \$50,000 per year. There is no overtime for safety reasons. When starting, one makes 80% of pay during a probationary period, which is typically six months of work time.

SUMMARY

The TCCD/BNSF partnership has resulted in the Railroad Operations Management Training Program, of which the RDCP is a part. The RDCP provides students who have little or no railroad experience with a chance to obtain many of the skills necessary to be a safe railroad dispatcher. In addition, it provides BNSF with an affordable and effective way to train new dispatchers. The job outlook for railroad dispatchers in the near future is good.

In this researcher's review of the literature, she found that very few studies of business training partnerships address qualitative evaluation of the programs; although, the emphasis on student learning outcomes has increased in recent years. In addition, she found that the role of the instructor for the success of a training program was often glossed over or not mentioned in evaluating program success. Therefore, this dissertation focuses on qualitative evaluation of a community college/business partnership, with an emphasis on such factors as student perspectives, supervisor perspectives, and the instructor's perspective on the RDCP. It also assesses the role of the instructor in the overall success of the RDCP. Using qualitative methods (see Chapter 3), indicators important to students (such as job preparedness) will be identified. Both new and older RDCP graduates, all of whom are now working as railroad dispatchers, will be included in the study. Interviewing the RDCP instructor and the RDCP graduates' dispatcher supervisors will provide additional insights to the program's success, as will study of the instructor's role. It is hoped that this study will provoke researchers, college personnel, and business people to include a new qualitative dimension of analysis when assessing the success of community college/business training partnerships.

Chapter 3: Methodology

INTRODUCTION

The purpose of this chapter is to present the methodology of the qualitative study of the Railroad Dispatcher Certificate Program (RDCP) at Tarrant County College District's Northwest Campus (TCCD).

PURPOSES FOR STUDY

The project will develop a systematic description from the student's and graduates viewpoints of the RDCP at TCCD. In addition, a systematic description of the RDCP instructor and dispatcher supervisors' viewpoints will be developed to add balance to the graduate's perspectives. The results will be used to analyze how well the RDCP is preparing students to be railroad dispatchers. Based on the results, suggestions to make the RDCP even better will be provided. It is expected that this case study may provide new ideas to those interested in gathering qualitative data relating to student outcomes to aid in the assessment in similar workforce training programs.

RESEARCH QUESTIONS

In grounded theory qualitative research (see “data analysis” below) many research questions emerge as the researcher becomes more involved with the project. In addition, questions may also be suggested by the subjects themselves (Strauss & Corbin, 1998). For this project, questions were generated in both of these ways. The questions that were addressed were as follows:

Questions for New and Older Graduates of the RDCP

1. Why did you choose to become a dispatcher?
2. Why did you select the TCCD RDCP?
3. Compare your expectations of the program with your actual experience.
4. What was the most valuable lesson you learned while in the RDCP?
5. Do you feel the RDCP adequately prepared you to be a dispatcher? Explain.
6. What would you keep and what would you change in terms of topics studied in the RDCP?
7. What would you add or discard to improve the RDCP?

Questions for Graduates' Supervisors (Experienced dispatchers)

1. Tell me what you know about the RDCP. What is your understanding of the nature of the RDCP program?
2. How do RDCP graduates perform on the job – both soon after graduating and after gaining experience?
3. How do RDCP graduates compare with dispatchers who did not attend RDCP?
4. Do you have any ideas about how the RDCP could better train dispatchers?

Questions for the RDCP Instructor

1. What is the most important idea your students should learn from the RDCP?
2. How do you approach teaching dispatching?
3. What are the strengths/weaknesses of the RDCP?
4. What kind of feedback, in general, do you receive about/from RDCP graduates?

Please note again that all subjects were also given the opportunity to add their own questions and comments all during the interview process.

BIASES ON THE PART OF THE RESEARCHER

In any study, researchers must be aware of their biases and how that may affect the research. This researcher's largest bias is that the researcher is a railfan. Railfan is defined as "... a generally accepted, non-derogatory term for North American railroad enthusiasts" (Robl, 2001, chapter 1, p. 1-2). Being female, this researcher is a bit of an oddity in the railfan world. Most railfans are white males. How being female and a railfan affected the researcher's interactions with the dispatchers in this study is difficult to determine. Whenever possible, she was careful not to mention that she was a railfan until after the interview had been completed. It is important to note that, in general, the railroad is a male-dominated profession (Niemann, 2002):

...women were new to this type of workplace...we also had to confront stereotypical attitudes about women's nature and capabilities.... (p. 50)

Indeed, the fact that the researcher was female was of interest to many of the participants because the societal stereotype reinforces that women in general are not interested in railroads. However, she did not receive any negative feedback from participants because she was female.

PARTICIPANTS

Participants were predominantly white, male dispatchers of varying ages and years of experience. One of the dispatchers was a white female who had worked on the railroad for over 15 years. Not much of the demographic data was collected due to the researcher's sense that many participants were uncomfortable with that. All the

dispatchers were employed by BNSF Railroad at the time of the interviews. Nine of the dispatchers were graduates of the RDCP, including one who attended the program when it was housed at Johnson County Community College in Overland Park, Kansas. Two of the participants were both graduates of the RDCP and also current dispatcher supervisors.

Most participants were interested in this study; in fact, the researcher's contact at BNSF requested a completed copy of the dissertation, stating that the researcher's visit and interviews had generated a lot of interest and that the dispatchers wanted to read about the completed study. All participants were told their interviews would remain anonymous. Again, it should be noted that two of the dispatchers had graduated from the RDCP and were now promoted to dispatcher supervisors. They were asked both the graduate and dispatcher supervisor question sets listed above.

Much difficulty was encountered during the first 8-12 months of this study in terms of obtaining the names of RDCP graduates and in being able to contact the participants/interviewees. This was quite frustrating and, indeed, little cooperation was received from the college until a TCCD administrator was contacted. This administrator then put the researcher in touch with a particular dispatcher supervisor at BNSF. This dispatcher supervisor was invaluable to the study because he/she was able to help the researcher identify and contact the RDCP graduates and other dispatcher supervisors who participated in this study. Once the researcher was actually able to contact the graduates and supervisors, she found them eager to answer the research questions, interested in the study, and more than willing to participate. The only difficulty encountered, and it was a small one, was the nature of the required consent form from the University of Texas at Austin. The consent form is worded for, and better suited to, medical research studies, rather than qualitative research practices that

do not involve subjects taking medications or undergoing new medical/clinical procedures. However, after this study's participants understood what the document was, who it was designed for, and why it was needed, there did not seem to be an issue.

THE DATA

A total of 14 interviews were conducted and used for this study. Telephone interviews were recorded with eight of the dispatchers. Six dispatchers were interviewed in person, including the dispatcher instructor, who is a former dispatcher with over 15 years experience on the railroad. The in-person interviews were also recorded.

Most of the interviews were between 30 and 60 minutes in length. Recorded interviews were immediately labeled with a number (selected by the dispatcher being interviewed) and a category (recent graduate, old graduate, dispatcher supervisor, or dispatcher instructor). The interviews were transcribed by a professional transcriptionist. No person's name was attached to the transcript. The transcripts were then emailed to the researcher, who stored them off-site and also on a back-up disk. The tapes will be erased after the successful defense of this study. The transcripts, identified only by number, will be stored indefinitely on the researcher's hard drive and on a back-up disk. Participants were made aware of this whole process and did not voice any objections.

During the interview, each subject answered the appropriate questions provided above, depending on which category(ies) he/she fell. However, in the spirit of qualitative research (Emerson, et. al., 1995; Strauss & Corbin, 1998; Spradley, 1979), the order of the questions could be dictated by the participant's response to the questions. During the interview, participants were invited to add their own questions

and comments. Several of these participant-generated questions were added to the question list or incorporated into the researcher's questions for subsequent interviews. One example is the question "Why did you choose to become a dispatcher?"

INTERVIEW PROCESS

Four of the live interviews were done on site at the BNSF dispatching headquarters in Ft. Worth, Texas. The dispatching room, or "floor," is a 45,000-square-foot open room. It has very high (two to three story) ceilings, dim lighting, and many cubicles, each housing a dispatcher workstation (see below). At the "front" of the room (the direction that most all of the dispatcher desks are facing) are several very large screen displays. Weather, locomotive supply data, freight and customer data, and other information pertinent to railroad operations is continually projected onto these screens.

The dispatchers interviewed were willing to talk and describe what dispatching entailed. Several dispatchers were especially enthusiastic about their jobs. For example, one dispatcher mentioned that even though he had never personally met the train crews with whom he interacted, he had developed a "virtual" friendship with some of the crew members. He spoke positively of the working relationships they had and he seemed to really enjoy dispatching the territory he was in charge of. A senior dispatcher, observed on the job by the researcher, clearly loved dispatching and patiently took the time between his duties to answer questions. He gave a 'tour' of his workstation, which consisted of multiple computer screens displaying large amounts of information, including the location of trains, the size of the trains, who the train crews were, the track layout of the territory, etc. By interviewing dispatchers in their 'natural' setting, the researcher was able not only to actually observe the dispatching process, but also may have put the dispatchers more at ease answering her questions.

One of the live interviews was conducted at TCCD at the request of the interviewee. The setting here was a classroom used by the RDCP students and instructor. Another live interview was conducted at a local business away from both the dispatching center and the college. This was at the request of the interviewee; too, as he/she had just finished his/her shift. Both interviewees were interested in the study and happy to answer the researcher's questions.

Telephone interviews were conducted at the convenience of the dispatcher being interviewed. The interview involved calling him at home at a pre-appointed time. Like the dispatchers who were interviewed in person, these participants were willing to provide additional information and insights not covered by the interview questions listed earlier. None of them seemed nervous or upset by the interview setting. In fact, many of them appreciated the fact that they could be interviewed at their convenience in a setting in which they were comfortable.

DATA ANALYSIS

A basic qualitative method of research, using many of the tools of grounded theory, was used to conduct this study. Strauss & Corbin (1998) was consulted repeatedly and extensively during the analysis of the data. Other resources that were consulted heavily include Spradley (1979), Fontana & Frey (1994), and Bogdan & Biklen (1998). Spradley (1979) was especially helpful in formulating questions for the interviews. Emerson, Fretz & Shaw (1995) was also a useful resource.

Initially, several interviews were microanalyzed and open coded (Strauss & Corbin, 1998). This was done by first reading the interview several times to get familiar with the content. General impressions were then noted. The interview was then divided into units expressing a similar thought, action, event, or idea. Key words

and phrases were microanalyzed and coded. Categories and concepts discovered in the first several interviews studied were then summarized and used to guide analysis of the other interviews.

Next, keeping in mind the categories and concepts gained from microanalysis of these several interviews, each interview was read at least twice and then analyzed. Analysis of interviews consisted of rereading the interview while looking for and noting categories. Relationships between categories were also noted and exploration of subcategories (axial coding) was done. Coding for process was done to a limited extent with regard to the RDCP program's approach to teaching the material (what was studied and what teaching techniques were used). Again, Strauss & Corbin (1998) was consulted repeatedly during analysis.

After further analysis and category definition, each interview was scoured for pertinent quotes that related to each of the categories. Finally, as this document was composed, any new insights or relationships found during that process were noted and added, if appropriate, to the study. In addition, literature references that pertained to the findings were also consulted and referenced.

SUMMARY

Basic qualitative methodology in the spirit of Strauss and Corbin (1998), as well as suggestions from the works of Spradley (1979), Fontana and Frey (1994), Bogdan and Biklen (1998), Spradley (1979), and Emerson, Fretz and Shaw (1995) was used for this study. The purpose, again, is to apply basic qualitative research methods to the study and assessment of a workforce training program. This case study serves as a model for other community colleges and businesses interested in qualitative assessment

of their workforce training programs. The emphasis on the graduates' viewpoints and that of their supervisors is unusual, as is the focus on the instructor's role in program success.

Chapter 4: Results

INTRODUCTION

Overall, students felt that they had received excellent preparation from the Railroad Dispatcher Certificate Program (RDCP). Positive comments about the instructors abounded. Supervisors of the RDCP graduates spoke favorably about graduates' performance and the RDCP. Finally, although graduates had a variety of reasons for entering the program, all reported similar experiences and opinions of the RDCP. Suggestions for improving the program included adding more opportunities and time for dispatching simulations. More "road trips" and observation periods were also strongly recommended.

WHY RDCP? WHY BECOME A DISPATCHER?

Almost all graduates stated they knew of no other college program that prepared one to be a railroad dispatcher. Indeed, this researcher was unable to locate any other railroad dispatching program in the United States that was open to the general public.

Students had various reasons for becoming dispatchers, as these quotes show.

I thought it would be a good challenge to do something better in my life than in my younger years and what I was doing before...

I was a [railroad] conductor for two years. I resigned and tried farming...then I decided I wanted to go back and work for the railroad again.

It looked interesting.

It was [the job] with the most pay for the least amount of college time.

It was something I wanted to do probably five years ago...I was looking for... a salaried-typed job.

...my father worked for the railroad...

The most common reason for becoming a dispatcher was to have a good-paying, interesting job that had little lay-off potentials. Many graduates also cited that they had friends or relatives who worked for the railroad, or that they had prior railroad experience. Frequently, students mentioned that the RDCP was the only dispatching training program of which they were aware.

EXPERIENCES IN THE PROGRAM

Graduates most often described railroad dispatching as challenging and intense. This is also how they described being a student in the RDCP. Students are in class five days a week, seven hours a day. Quizzes or exams are given each day. There is a mid-term exam and a final. A passing grade on both the mid-term and the final exam is 90% or above. One of the instructors stated, “A railroad dispatcher’s job is so critical. We have high standards. There are no Bs and Cs in these classes.”

There are two basic phases to the class: learning the rulebook, the “G core rules” (general operating rules), and the TDM (train dispatchers manual) and, second, learning to apply those rules and concepts to real-life situations in simulated dispatching scenarios. Some students also described a field trip to Alliance Yard (a BNSF rail yard in Fort Worth). Many students went on “road trips” once they had been hired by BNSF. This allowed them to see the territory which they may be dispatching and to establish at least a minimal experience to the situations which they would be regulating through the abstraction of a computer. They also experienced what it is like for train crews, maintenance of way, and other railway workers who are “out in the field” actually working with the trains and track, as opposed to sitting behind a desk as the dispatcher is.

Students commented on the abundance of material to learn, the quick pace and intensity of the program, and its difficulty. Dispatchers must quickly recall a large number of operating rules, many of which, according to the instructor, were “written in blood,” meaning the rule had its origins in an incident involving employees’ death or severe injury. The resulting rule was devised to help prevent a similar incident. Because dispatchers make many quick, on-the-spot decisions, there often is no time to look up a rule. It must be instantly retrievable from memory. Therefore, much time is spent ensuring student’s familiarity with, and knowledge of, the rulebooks. In addition, students without a railroad background are challenged by the abundance of railroad-specific terminology, and must quickly learn to conceptualize the term’s meaning.

It’s not one of those basket-weaving courses we always talked about...being an outsider to the railroad, it was pretty tough...you have to assimilate a lot of regulations and at the same time you have to try to understand how it fits in the railroad itself. There is a lot of jargon...

It was a very challenging class. I think I lost fifteen pounds.

It was a lot of work, a lot of studying, and it was very fast paced.

...coming straight in [no previous railroad experience] was like learning a whole new career in three months...coming from the outside in is not an easy step to take...

Graduates consistently emphasized the rigor and intensity of the class, and how important that was for training successful dispatchers. No one said the class was easy, not even those individuals with prior railroad experience.

Cooperation with one’s classmates, rather than competition, was the norm. Much of this is probably caused by both the instructor (see below) and the nature of the job for which the students are being trained. Dispatching requires cooperation among dispatchers, and between dispatchers and the railroad employees in the field. Competition on the job could result in unsafe practices and even severe accidents, as

well as inefficient movement of trains. Therefore, by learning as a group in the classroom the behaviors and attitudes that will be useful on the job, students may become even better dispatchers.

You learn to help each other out. It was really good.

...it really wasn't too competitive. If anyone had problems, we all stuck around after class and tried to work it out...

The cooperative spirit and cooperative working relationships so necessary to the job is thus essentially instilled and reinforced by the training program.

At least three students commented that they wished the program had been a bit longer. Exactly how much longer could not be determined, as everyone had different ideas. However, all who commented on this topic stated they would not want to have had the program extended for as long as another semester. Their reasons for this included the expense of the program (apparently there are no scholarships available) and the desire to get out of school and on the job as quickly as possible. Five students (and also two supervisors) agreed, however, that extra time for dispatching simulation would have been very valuable to them (see below).

It was...not a real lot of time to learn the material...

If I could change anything, I would lengthen the class by maybe an extra week and do a little bit more of the scenarios...

If they made it into two semesters I don't think I could have made it through it because I was having to pay for it myself.

Based on these comments, college administrators and business partners who reassess the program might consider adding one or two more weeks to it, while avoiding the more drastic extension to two semesters.

Students also appreciated the small class size. RDCP classes typically have no more than twelve to fifteen students, but some graduates came from even smaller classes.

I think the class works better with a small number of people because you get more attention.

In an educational situation, where the learning curve is steep and intensive, it appears important to continue to limit the size of the classes, and to preserve the crucial low student-to-teacher ratio.

MOST VALUABLE LESSONS LEARNED

By far the most valuable lesson cited by graduates was safety, followed closely by attitude, including working with others. The most valuable classroom exercises, in terms of these factors, that were mentioned by the graduates were the dispatching scenarios and simulations.

Safety, as discussed earlier, is of paramount importance to the job of a dispatcher. Train crews, maintenance-of-way workers, and other railroad employees depend on dispatchers to monitor train movements and track usage. “The most important idea that the students should learn first of all is safety,” stated the instructor. The importance of the safety concept was reinforced by a graduate who, when asked to expand on the safety emphasis, stated, “There are real humans on those real trains out there.”

Safety is number one...It was the number one question on every test. Learning how important safety is...the mobility of trains, how big they are and what it takes to stop one...learning basic safety rules that you never would have thought about, being a regular person in society.

...the whole point of the class would probably be... safety.

...there is a rule in the rulebook (that says) to always take the safest course (of action).

Overall, it seems clear that the RDCP puts a great deal of emphasis on safety, and that the students and graduates perceive and appreciate this emphasis.

THE INSTRUCTOR AND HIS INSTRUCTION STRATEGIES

RDCP is structured so that there is one primary instructor; however, guest instructors also give presentations, help run simulations, or educate students about specific aspects of dispatching. The primary instructor, who was interviewed for this research project, dispatched for seventeen years. His background also includes teaching and public speaking. He is an employee of BNSF, in fact, but he works at the college both physically and as a part of the RDCP educational team.

Graduates made many positive comments about the primary instructor. They appreciated the fact that he set high standards and had high expectations and that he cared about their learning.

My instructor especially made it enjoyable to go to class...he was a person that kind of was inspirational...He was quick to praise and also quick to get on you for not doing what you were supposed to be doing.

He is really personable and he understands...He is good at explaining his terminologies....and if you need extra time he will help you. He will stay afterwards [after class].

I have been through four years of college and I have never gotten any of the caring or seriousness or thoughtfulness out of any other instructors besides these [RDCP] instructors.

This researcher found the instructor to be motivated, enthusiastic, and dedicated. He truly cares about student success, a fact that came through in the interview, which was over an hour in length;

My students become like family to me...they get lots of lessons from me and they don't just get train dispatching.

I try to make the class informative, but I try to make it fun.

I thoroughly enjoy people...they (my students) come by years after they leave class. I am very humbled by that.

...they [my students] are always hungry for information and they want to do their best and it's fun. It's really fun and I enjoy it.

Such a positive and dedicated teacher obviously adds a great deal to the quality and effectiveness of the program.

Roueche, Milliron, and Roueche (2003) discuss the core strategies of effective teachers in *Practical Magic: On the Front Lines of Teaching Excellence*. Strategies are grouped into two categories: teaching content and teaching students. The content strategies address how well the teacher knows the subject material, its application, and its relevance. The application of pedagogical methods, learning resources, assessment techniques, and organizational skills also falls under this category. Strategies for teaching students encompass social and behavior skills, such as showing respect, making learning enjoyable, being empathetic to student needs, setting high expectations, serving as a role model, listening, rewarding, and encouraging students, and making time for students when they need extra help. The primary RDCP instructor exemplifies the best of both content and "teaching student" strategies.

For example, collaborative learning, which refers to students working together cooperatively in pairs or groups, is an important part of the RDCP. This technique is frequently used for the rules part of the class and always for the mock dispatching scenarios. Graduates commented that group work helped them grasp difficult concepts. It encouraged cooperation and motivated them to assist each other and to master the material. One graduate stated that group work, together with the instructor's modeling

how to get along with difficult people, allowed him to learn a lesson he values highly and now uses regularly on the job.

One of the things I liked (about the class) that has been useful for me in dispatching is getting along with other people, even people I normally would have personality conflicts with or disagreements with.

The instructor, in fact, stated that this was a primary concept he wanted to get across to the students:

Attitude. One thing that I teach my students is to never make enemies unnecessarily. That will carry a person a long way. Not just in train dispatching but in life... in train dispatching if you seek to make enemies it's a habit that can come back and bite you because everybody depends on everybody else.

Other comments from graduates about the effectiveness of group work included these:

A lot of times it would be the instructor giving a (dispatching) situation and each group would try to come up with an answer or conclusion to the problem. [At the end] We would discuss pros and cons and what went wrong and how everybody did everything...it worked out real well...

... he [the instructor] would put some of the people that were struggling and had questions with the people who...had some experience with that [concept].

Clearly, group work is, and should continue to be, one of the most important parts of the training program.

Graduates had confidence that the instructor knew his subject. This is critical when teaching in a field if the student is going to learn the material (Roueche, Milliron, and Roueche, 2003).

I really liked my instructor...he tried to make it [dispatching] come alive to us and made us see the important things because he had actually had years of hands-on experience with it...our instructor was fantastic!

Assessment took the form of daily tests, quizzes, a mid-term, a final exam, and discussions. Graduates found the daily quiz/test helpful because it provided immediate

feedback on how they were doing and helped them understand what they needed to review or ask more questions about. As stated above, the instructor would analyze with the class how each group had solved a dispatching scenario; graduates continually commented on the value of these simulation exercises (also see below). High standards were set immediately. Mistakes in railroad dispatching can cost lives, as well as money, and the instructor made clear that poor performance was not an option.

...we don't coast here...I kind of give them a lot of stuff on the first day and it wakes them up and they realize, wow, this is not going to be easy. (RDCP Instructor)

In the class you have...two big exams... a mid-term and a final and then a computer portion also. You have to pass all three; it's like a 90 or above.

You had a very short amount of time to basically learn a 300-page document from front to back and understand the ins and outs of why certain things worked the way they worked. So every single day you had a test about the material that you had gone over the day before. You had to put quite a bit into it.

It was very challenging. It was a lot of work, a lot of studying and it was very fast paced. It required a lot and the teachers required the best out of you...

Effective teachers make content relevant to students and demonstrate how it can be useful and practical to them (Roueche, Milliron, Roueche, 2003). To this end, dispatching tools used by BNSF dispatchers are used in classroom for both learning and for dispatching simulations. Computer software, paper forms, and field experiences are incorporated into the RDCP experience. The software shows dispatchers where the trains and maintenance-of-way personnel are located, where sidings are, and other pertinent information. The dispatcher, using this software, can also throw a switch, for example, or light a signal that may be hundreds or even 1000 miles away.

Some railroad territory, however, does not contain signals. It is called "dark territory" and requires the use of specific forms called track warrants. As mentioned, a field trip was incorporated into the RDCP, too. In addition, if a graduate was hired by

BNSF, he/she often went on a “road trip,” where the student was actually able to actually ride with train crews and maintenance-of-way personnel, allowing students to experience what it is like “in the field.” These are all good examples of the instructor incorporating relevant and practical content into the RDCP curricula. Students consistently commented on this, stating that the role plays were the most useful part of the course. Some stated that they would have liked to have even more time for simulations and field experiences.

...what I think was the most important part (was) the actual hands on, the actual putting things together and saying, ok, let’s take what you’ve learned and start to apply it to these situations...we would take turns being the dispatcher and being the train or maintenance-of-way employee...

Probably the best part of the program is what Mr.____ [the instructor] called putting you in the “hot seat.” That is where he would put us in the dispatcher’s chair and...the rest of the students would act like they were train crews, maintenance of way, or whatever...we would actually have to dispatch everybody!

I wish we had more time to work with that [dispatching software], because that is what we do at work everyday.

I spent two weeks in [Nebraska] and during that time I was meeting with train crews, maintenance-of-way personnel, learning how they do their job and learning about the track, learning what causes things to happen and how scenarios are fixed...

...there was a lot of computer-based training in the classroom...where they could actually have a simulation of dispatching...and we would split up into groups and figure out the same thing....How to get from A to B without killing people.

I like the fact that they let you go down to the dispatching center and actually sit with a dispatcher.

The importance of such hands-on, experiential learning cannot be overemphasized.

“Teaching student” strategies employed by the RDCP instructors include being available to students, showing respect for students, making learning enjoyable,

motivating students, and listening to and encouraging students (Roueche, Milliron, Roueche, 2003). All students interviewed, and some of the supervisors, spoke highly of the instructor. Their comments illustrate that this particular instructor does exemplify these characteristics. Indeed, during this researcher's interview with the primary instructor, she was impressed by how student-centered the instructor is. Other comments relating to this are listed below.

I have nothing but good things to say about...the instructor. He was a super, super nice guy who cares not only about your getting a job, but he wants you to be happy....He is someone who genuinely cares about the class...he would bend over backwards to help us.

...the instructor did a real good job as far as trying to make that [general operating rules material] interesting and trying to keep everyone informed.

SUPERVISORS' IMPRESSIONS

Supervisors' impressions of the graduates' performance and also of the RDCP program were favorable. Supervisors commented that graduates were well-versed in the railroad rules and regulations. They also stated that graduates performed well once on the job.

...I know that every student that comes through the program has a background that gives them an advantage... I think it is extremely helpful to them...

...I believe as far as the rules and the methods that they [the RDCP] do a very good job of teaching.

I think they do a pretty good job as far as preparing the students and potential dispatchers for what they are about to face.

The subject and the way they [the RDCP] prepared you for the position of a dispatcher was excellent...I think the class definitely prepares you for the career. (an RDCP graduate and now a dispatcher supervisor)

Being of the old school, my initial reaction to when they told me they were going to bring people off the street [no prior railroad experience] to be train dispatchers, I really felt that there was no way that could be successful. Because of the program that we have, that is successful. Not 100% of the time, but we were not 100% successful when we were promoted from within [the railroad] ranks either.

Judging from these comments, the ability of the program to effectively train students with no prior railroad experience must be rated as highly successful.

Supervisors, like graduates (see above), commented that having prior railroad experience gave one an “edge” both in the RDCP and then on the job. Supervisors stated that graduates who came from the railroad generally caught on more quickly and had an easier time with the job. This is to be expected, since these individuals have more experience and understanding about working on a railroad. It was also mentioned that students/graduates with prior military experience seem to perform better initially than those with no previous railroad and/or military experience. The working hours on the railroad are quite different from traditional jobs and may be closer to military jobs. In addition, the self-discipline and rigor of military training may be similar to the demands required by the RDCP program and also the demands required by a dispatching job. Perhaps people without prior military or railroad experience just have a more difficult time adjusting to the program or to the dispatching job because they have not received that experience.

The ones that come from maintenance-of-way and from the field as far as conductors and engineers seem to grasp it [dispatching] a little faster because they are already rules-qualified...they [also] have a whole lot better perspective on what’s going on on the ground (meaning in the field)...

A lot of people who come from the military have an understanding of it [what the railroad is like]...

I would definitely recommend the program especially for ex-military personnel.

...it's hard to take a person who has gone to college or a person who is working in the typical professional world and have them understand the significance as far as the hours involved and the time of day and the fact that the railroad is a 24/7 operation (meaning continuous).

Like I say, they [the RDCP] give you all the tools to do the job and all the educational background and all the rules and everything else. It's all a matter of getting out there and a lot of people even in my class are not there today. It's not that they weren't rules ready and qualified to do the job, it's just that they didn't like the hours.

Yes, the [railroad] experience helps...

The experience of working for a railroad or the military - the precision, the timing, and the intensity – probably helps in learning to be a dispatcher. Once on the job, this past job experience may assist the new dispatcher with quicker adjustment to the dispatching job and its requirements.

One supervisor also mentioned that some students, who may have had a lot of prior railroad experience, may not attend the entire 15 week program. They instead attend an abbreviated version of the program, since they are already familiar with railroad regulations. However, this same supervisor felt the longer 15 week program seemed to produce better prepared students by the end: "I think the people who go through the ... (whole) program have a better chance than those who don't. I think they get more background. I think they get a more complete package."

Again, with respect to content, the RDCP provides extensive coverage of railroad rules and regulations, especially as regards safety. Supervisors felt the RDCP did an excellent job getting students acquainted with railroad rules and procedures. Several supervisors also observed, however, that whether someone actually succeeds at dispatching has a lot more to do with that person's individual characteristics, no matter how well he/she learns the rules and regulations.

...I have yet to have had a problem with anybody [from the RDCP] that wasn't prepared to do the job or at least ready to do it at a level where they are of use to me and I can train them further...they [the RDCP] do a good job in presenting us with people who are ready to move onto the next stage of gaining experience...

Some of them [the graduates] have an easier time changing from making it from the book learning into the job application. It's the applying [of the rules learned]. Some of them just get it ... [others] it takes them a while to put the two pieces together...

There are certain individuals that came to us out of the program that were excellent at what they did and they had a very good understanding and there were others who had a very difficult time.... It's not the colleges fault or anybody's fault. It's that the job is a very stressful and demanding job and some people can do it and some people can't.

The human element ultimately becomes more a determining factor than background; whether it comes from formal education or from railroad experience.

Overall, supervisors stated the RDCP did an excellent job preparing graduates, but, again, they continued to comment that no program could fully prepare one for this job; there is no replacement for on-the-job experiences. Supervisors and graduates both stated that the railroad is a job like none other.

The railroad is a different career than anything else.... They [graduates] have to have a certain amount of what we call 'break in' to get an idea what the operation of the railroad is.

Typically what I find in dispatchers is personality, what your aptitudes are, play a much bigger role than formal education or whether you came from another [railroad] craft.

There is only so much they [the RDCP] can teach them and the rest they have to learn on the job.

There is a great variable inserted into the effectiveness equation that is difficult to measure and difficult to control: personal characteristics. As mentioned previously, admittance to the program involves not only an application. Students must pass a

rigorous interview as well as an aptitude test. In addition, the instructor stated that if he does find a student who, in his estimation, would not be a successful dispatcher, or who would be unhappy with dispatching, where he works with the student to find an alternative careers and options. Obviously, using these methods, the impact of personal characteristics of students on the success of the program is minimized.

OTHER COMMENTS ABOUT THE RDCP AND DISPATCHING

I don't think anything can totally prepare you to do this job...

As discussed above, graduates, supervisors, and the instructor stressed that, even though the RDCP does a good job with preparation, there is no substitute for on-the-job training and experiences. Dispatchers are required to make many decisions, and they must do this within very short time spans. Trains need to be moved efficiently, but also safely; two goals which are ideally compatible, but are not always so. Dispatchers need to remain calm and focused on their jobs. A mistake could cost not only money but lives. The RDCP training emphasizes this and does the best it can to simulate real dispatching experiences.

Of course, there are some things the class is never going to teach you. You won't know until you get there.

There is no such thing as being caught-up on this job.

Dispatchers make the quickest decisions in the shortest amount of time....They have to make the decisions and they can't wait because you have more than one thing going on....When you sit down here [in the dispatcher's chair] it is stressful.

Obviously, the dispatcher must be able to focus on more than one event at a time. He/she also must assess a situation and decide the best course of action in a very short amount of time.

Dispatchers mentioned how important it was to remember that the railroad is people, not just trains and freight. Maintaining good relationships with other dispatchers and train crews, as mentioned above, is essential for effective dispatching. The instructor, too, stressed this and linked it to safety (see above).

Safety. Safety. Safety. You don't want to hurt anybody.

There is just some way that you can still talk to somebody who is that far away and you can believe what they are saying is happening and it does. You don't have to worry about people telling you something different than what is going on. (a dispatcher commenting about having a good relationship with train crews and maintenance-of-way personnel)

Related to the idea that all actively engaged railroad employees are an integral part of the railroad are the dispatchers' attitudes towards train crews and maintenance-of-way personnel. Again, the RDCP instructor continually stressed the importance of attitude in both his interview and in the classroom. Apparently, attitude was of critical importance to the graduates. This researcher was particularly struck by how much some of the dispatchers really cared about the train crews and other railroad personnel with whom they worked. For example, one RDCP graduate and now dispatcher commented that he had worked a territory that other dispatchers often tried to avoid because it contains both signaled (light signals that the crew can actually see) and dark territory (no signals present to warn of other railroad traffic; the railroaders in the field must depend on the dispatcher for information on train movements). However, he loved his job and enjoyed the people in the field on his territory.

At first I hated it [the challenging territory].... As I have worked it, I have actually learned to like it now.... You get to know the train crews and the maintenance people. You talk to them everyday for hours everyday so you get to know them and it makes it seem a little bit better and not so horrible when you like the people your working with. You get familiar and you start trusting them. When they say something can be done, you know that it's going to get done. You don't know that at every desk (dispatching territory).

Here, the attitude of the dispatcher towards working crews was of crucial importance both to his performance of the job and to his eventual enjoyment of it. As he and the working crews continued to build an attitude of mutual trust and respect, his job became easier, and undoubtedly, better executed.

As a second example, one of the dispatcher/graduates, following the RDCP instructor's advice ("*never make enemies unnecessarily*"), learned that another dispatcher disapproved of his actions. However, other dispatchers and the train crews with whom he worked reassured him that the issue was with the other dispatcher and that he should just continue his good work. This reassurance was obviously very important to him. He later commented on how important the characteristics of being calm and polite are to the performance of this job. He also stated that he enjoyed dispatching.

He (the other dispatcher) said I was being too nice to the crews.... Other people said, Oh, that guy's a _____ (expletive). ... All the crews hate him out in the field. Finally, he [the other dispatcher] bid off that job (took another territory) and the crews were happy to see him go...so, I think a good candidate for that class [the RDCD] is somebody who has a good demeanor and one that doesn't get uptight easily... Being a dispatcher is a job that is fulfilling and it's the job that I'm proud to have.

Several dispatchers and the instructor commented that the RDCP is especially necessary since the traditional workforce from which dispatchers were drawn is now gone. For example, most railroad towers have been closed because of modern technological advances. Many complex track interchanges used to require a tower operator to mechanically set switches in his immediate area (the interchange) so that trains would occupy the correct tracks. The tower operator may also have dispatched the interchange area. Nowadays, the tower operator's duties are mostly carried out from a location far removed from the interchange area. As described earlier, complex

software allows many modern types of switches to be thrown remotely by the dispatcher, who may be hundreds or even thousands of miles away. The dispatcher is also responsible for dispatching the interchanges within his/her territory.

...the pools that they typically drew dispatchers of out on the railroad, those types of jobs were going away and they (the railroad) needed a mechanism to hire talented people they thought would be able to do the dispatching jobs.

WHY THE PARTNERSHIP WORKS

The RDCP instructor commented that he felt the main reasons for RDCP success were the quality of the graduates and the cooperation between the community college and the railroad. There were many positive comments (see above) from dispatcher supervisors about graduates. The instructor best describes the partnership:

I think there are two things that keep the partnership really strong. One is that it is successful [successful graduates] and the other thing is the cooperation between the two entities [the community college and the railroad business, BNSF]. There is great cooperation between the college and the railroad. So we try to work with each other and when you do that things can happen. Good things.... Everyone has an interest in it and everyone wants to see it succeed... It makes it exciting because you know people support you. You know that you have the support of the college and you know you have the support of the railroad.

The goals are really quite similar, and of mutual, almost symbiotic character. If the goals were ever to diverge, or even become antagonistic, the program could be adversely affected, conceivably to the point of ceasing to exist. While this is highly unlikely, it is not impossible to imagine a situation where both college and/or railroad could face crushing budget deficits, which would either end the program or lead to calls from one or the other to shoulder more of the cost. Another potentially adversary situation might arise in labor disputes, with the cost of employment a possibly divisive factor. As of this writing, neither of these adversarial situations appears to be very real.

This research also supports the concept that the attitude and capabilities of the instructor contribute greatly to the success of the RDCP. As described above, the particular instructor surveyed here exemplifies the characteristics of an excellent teacher. He maintains a positive attitude, sets high standards, is readily available, communicates complicated ideas clearly, incorporates collaborative learning and practical skills into the course material, and he knows his subject matter, thoroughly, as he has had years of experience as a dispatcher. Many graduates spoke highly and also enthusiastically about the instructor and how inspiring he was (see above). Some of them even consult him for contemporary advice after graduating from the RDCP (see above). From this researcher's seven year experience as a faculty member, and an even longer experience as a student, she can also attest to the critical role of the instructor to program success, and to student success (Roueche, Milliron and Roueche, 2003).

SUMMARY

Overall, students felt that they had received excellent preparation from the RDCP. Positive comments about the instructors were common. Supervisors of the RDCP graduates spoke favorably about graduates' performance and the RDCP itself. Finally, although graduates had a variety of reasons for entering the program, all reported similar experiences and opinions of the RDCP. Suggestions for improving the program included adding more opportunities and more time for dispatching simulations. More "road trips" and observation periods were also strongly recommended.

Supervisors, graduates, and the instructor believe that the RDCP successfully prepares students to become dispatchers, especially as regards learning railroad rules and regulations and basic dispatching skills. The RDCP graduates are successful, both from their own perspectives and from the perspective of their supervisors. The

instructor is a critical and essential force behind the success of the RDCP training program. Indeed, the role of the instructor in community college/business training partnerships needs to be more carefully considered than what may be indicated in current community college/business partnership literature reports, which usually downplay or omit the instructors' role entirely (see Chapter 2). Finally, the program, at least as far as the dispatcher supervisors interviewed, is perceived as successful by the business partner, BNSF.

Chapter 5: Recommendations, Suggestion for Further Study, and Application to Other Community College/Business Training Partnerships

RECOMMENDATIONS - MAKING THE RDCP EVEN BETTER

Graduates, supervisors, and the instructor all agreed that the RDCP successfully trains individuals to be railroad dispatchers. However, when asked, they also had some useful suggestions and recommendations for making the program even better. These are summarized in Table 5-1 and in a paragraph at the end of these supporting quotes from the interviews:

If I could probably change anything, I would lengthen the class by maybe an extra week and do a little bit more of the scenarios...

...the only thing I would change would maybe to lengthen it. To have a little more time to practice on the mock dispatching scenarios. Maybe more time for observation of the actual job...

If they made it into two semesters I don't think I could have made it through it, because I was having to pay for it myself... but in all purposes it would have been nice if it could have went a little longer or if you had a little more preparation on, like I said, jargon or other knowledge of the railroad industry itself.

I like the fact that they let you go down to the dispatching center and actually sit with a dispatcher... I would say [have] more of the actual hands-on, more of the actual experience of learning to do this [dispatching].

I really had no idea what was physically out there.... The road trip would have been better a little after I had already started getting some of that work experience...

I think that if it was easier to find, people might benefit more. (this dispatcher had a difficult time locating the program both on the BNSF website and when doing a search on the Internet)

If I had to add anything, maybe it would be...the workforce as far as helping you find a job afterwards.

...I'm still on what we call the extra board [extra board dispatchers substitute for dispatchers who have time off]. My schedule changes every week and sometimes every other day.... I understand all that, but you have to know that right from the beginning. (this dispatcher is commenting on the importance of making potential dispatchers aware of the job's odd working hours)

I would say more hands-on [dispatching simulations] and more of just watching who you bring over to do the [guest] instructing.... They might know their stuff, but relaying it to somebody and making them understand it is completely different.

...more equipment, more state of the art equipment, in other words, to really increase as technology progresses [so] that we progress with it.

...an area that could be much improved if we could get better software training, better simulation because when you simulate CTC, which is centralized traffic control system, and it doesn't have all the functions that... [dispatchers] actually have when they get on the job; well, how valuable is that simulation?

Where I think it could be improved is maybe almost an interim type program...It would fit between the railroad background they get and the actual on-the-job training.

What I would suggest...they would have six or eight weeks out in the field with maintenance, riding with maintenance people, riding trains, working in the yard....All the things that are involved in the day-to-day operations.

The better your [classroom] equipment, the better you can go with simulations. Simulations are a very, very important part of this class...

...the only thing I can think of that would have been nice ... would be if we didn't have to actually pay for the training.

In summary, five graduates and two supervisors suggested having more time for dispatching simulations. They also stated that spending more time observing a dispatcher at work would be valuable. Four graduates and one supervisor suggested providing students with more exposure to what it is actually like out in the field with the train crews and other railroad personnel. Interestingly, both of the graduates who were now supervisors mentioned that it was essential to make students aware of the irregular

working hours required by the railroad. Two subjects also stated that more current software and better quality equipment was needed to more closely represent the actual dispatching environment. Other suggestions that were mentioned only once or twice included having scholarships available and assisting graduates with finding a job. It should be noted that graduates are given the opportunity to interview with BNSF, and sometimes other interested railroads. The RDCP coordinates the interviews.

Table 5-1. Top five suggestions for improvement of the RDCP.

Improvement Suggested	Number of Interviewees
More dispatching simulations	Seven
More observations with working dispatchers	Seven
More field work with train and work crews	Five
Emphasize irregular working hours more	Two
Update equipment/software used for training	Two

SUGGESTIONS FOR FURTHER STUDY CONCERNING DISPATCHER TRAINING

Informal discussions that this researcher has had with train crews and maintenance-of-way personnel indicate that, in general, there is dissatisfaction with dispatchers. However, many also commented that efficient dispatchers were an asset and that they really enjoyed working with them when they could. Complaints included dispatchers apparently ignoring their calls, making poor decisions, and, in some cases, being rude. Some commented that they could not understand the reasoning behind certain dispatcher's actions. For example, a dispatcher would put a loaded coal train, going uphill, in the siding to allow an empty train, going downhill, to pass it. Train crewmen cited the railroad's interest in fuel conservation and efficient train movement

and stated that stopping a loaded coal train going uphill seems to go against both of those initiatives. To further this study, it would be interesting to interview the maintenance-of-way employees and the train crews concerning dispatchers. Gaining this additional “in-the-field” perspective could provide further insight into improved dispatcher training as well as dispatcher actions. An expansion on this study, but well beyond the scope of a community college/business partnership study, would be to interview dispatchers further regarding their interactions with maintenance-of-way personnel and train crews.

APPLICATIONS TO OTHER COMMUNITY COLLEGE/BUSINESS TRAINING PARTNERSHIPS

Use Qualitative Research as an Assessment Measure

As stated previously, much of the community college/business partnership literature emphasizes the “how-we-did-it” as opposed to the “now we’ve done it, how successful is it?” approach (see Chapter 2). Assessment of community college/business partnerships, when reported in the literature, takes the form of quantitative data, such as graduation rates or number of students enrolled. This study, however, looks at qualitative data as an assessment method. It is particularly unique in that it investigated program graduates’ perspectives as well as the business’ perspective in the form of business supervisor interviews.

A major factor in the success of the program, according to both these populations, is the quality of instruction and the capability of the instructor. Again, as stated in Chapter 2, instructor involvement and contributions may be mentioned in the literature, but it is this researcher’s experience that more often than not, the instructors

and their role in creating and running successful community college/business partnerships is often glossed over or ignored.

Many of the graduates were surprised that their input was being sought for assessment of the program. Some stated off-the-record that they believed colleges did not seem to be genuinely interested in students/graduates' perspectives and feedback. Not unexpectedly, the RDCP graduates in this study were quite eager to participate in an interview about the program. When questioned in a comfortable setting, they described, sometimes in great detail, how the program prepared them, what they liked about the program, and how they felt the program could be improved.

During their interviews, the supervisors of these graduates articulated how program graduates performed on the job and how the program contributed to the graduates' success as a dispatcher, as well as how the program might be improved to better emulate the actual dispatching job. Supervisors, too, seemed pleased that their input was being sought and was valued.

It is highly recommended that community college/business partnerships gather this type of input when assessing the success of their training partnerships. However, as with any study or assessment process, obstacles may be encountered. For example, consider the following issues faced by this researching during the course of this study:

- contacting the graduates and their supervisors,
- transcribing the interviews (this is both time consuming and it can also be costly). Small grants for transcription may assist students and further the research.

Other issues a college/business partnership may encounter include:

- finding qualified individuals to interpret the data
- determining if and how to implement suggested improvements

The most difficult obstacle faced by this researcher was gathering the contact information for the graduates and their supervisors. Student record privacy laws and the fact that students often move around after they have graduated make it problematical not only to obtain contact information, but then to find contact information that is current. This researcher is especially grateful to a friend in the community college system who helped her finally conquer this significant obstacle. In addition, a contact at the TCCD also assisted with contacting a BNSF dispatcher supervisor. This supervisor took an interest in the dissertation and was extremely helpful and supportive during this study. A lesson learned here is that the “inside” researchers, i.e. those directly involved in the program or the business, would have a significantly easier time gathering this contact information than an outsider. On the other hand, “inside” researchers might not have the same credibility as an independent outside investigator. Perhaps the trick is, as in good investigative journalism reporting, to find a reliable, trustworthy connection that will provide access without trying to influence the results.

Accurate transcription of interviews is vital. This researcher would recommend the use of a professional transcriptionist, both to save time and to ensure accuracy. However, this service can be quite costly. Therefore, colleges and businesses must determine if there will be adequate funds available for professional transcription services when planning a study such as this. If there is a transcription program at the college, perhaps its faculty members could be invited to participate in transcribing interviews. However, as suggested, small grants to cover transcription costs may be more effective and efficient.

Finding a qualitative researcher to carry out the qualitative study may not be an issue for colleges that have faculty members with qualitative research expertise.

However, if this is not the case, as may be with a technical college, the college and the business may chose to investigate one or more of the following:

- determine if any of the business' employees are qualitative researchers and would be willing to perform the study,
- find a qualitative researcher with an interest in the subject being studied; for example, perhaps there is a professor or graduate student at a nearby university who would like to accept a supervisory role in the project,
- hire a consultant whose expertise is in qualitative studies (this may be cost prohibitive, however).

Two obstacles often encountered when implementing program revisions or recommendations for improvement are a lack of funds and an unwillingness of college and/or business personnel to accept change. To help prevent these obstacles from becoming a reality, the college and business need to work together, committing budget lines to the program and making sure those involved with the program are "on board." For example, in this study, the cooperative relationship between TCCD and BNSF is appreciated by the RDCP instructor, who is open to doing what it takes to help the students and the program succeed. Additionally, as stated previously, there are numerous "how we did it" articles concerning the funding of community college/business training partnerships (Craft, 1995; Eisen, 1997; Kantor, 1994; Kisker, 2003; Lui, 1997; Maurrasse, 2001; Nichols, 1996; Roueche, Taber and Roueche, 1995; and Spangler, 2002). Many examples are provided in these references concerning how to address the issues of fund raising and personnel challenges.

Another item that needs to be considered when performing this type of assessment study is keeping the responses of the participants confidential. RDCP graduates and their supervisors were quite willing to be interviewed. In fact, at their

request, a copy of this completed dissertation will be shared with the helpful dispatcher supervisor, who will then share it with the participants. However, the researcher recognizes that in other studies, instructors and graduates and their supervisors may not be as willing to participate in a study for fear of retribution, job loss, or other adverse actions. Colleges and business wishing to perform a study such as this should take steps to ensure that participants remain anonymous and free from any adverse actions that could be taken as a result of participating in the study.

Finally, qualitative assessment provides valuable insights into the program that cannot be obtained from completion rates and job hiring percentages. For example, if a program has a 100% graduation rate, does that really mean students will perform well at their new job? Does it mean students and supervisors believe the program adequately prepares individuals for this job? What about the role of the instructor in the program's success? How does the business view the graduates' preparedness? As stated in Chapter 2, these types of questions are becoming more frequent and carrying increasing weight with assessment and accountability organizations and public groups (see Chapter 2 for references and discussion). This study provides a method for gathering and analyzing qualitative data when assessing a training program. It also demonstrates the value of obtaining student and supervisor perspectives (for example, the vital role of the instructor came to prominence only by seeking out these unique perspectives, see below). It is hoped that this study will encourage community college/business training programs to include qualitative data in assessment and review processes.

Importance of the Instructor

A significant finding of this study was how vital the instructor(s) is to the success of a training program. Time and again, students praised the instructor and

commented about his impact on their learning and training. Many of the older graduates stated that even several years after graduating, they still vividly remembered a particular concept or topic because of the instructor. For example, recall that students need to become intimately familiar with the 300+page general operating rules (G-core) for the railroad. This is a tedious task. However, note this graduates' comment about learning the G-core:

"...the instructor did a real good job as far as trying to make that [general operating rules material] interesting and trying to keep everyone informed."

Early in this study, the importance of the instructor in the success of the program surfaced. Therefore, after about half of the students and their supervisors were interviewed, the instructor was interviewed. Interviewing the instructor provided a third perspective and gave further insight into program success, student performance, and program improvement. Again, it is recommended that during qualitative assessment of a program, the instructor(s) input be sought.

Furthermore, as stated in Chapter 2, rarely is the role of the instructor emphasized in writings about community college/business partnerships/training programs. After analyzing the results of this study (see Chapter 4 for details), this researcher is convinced even more so that the instructor is as critical to the success of training programs as he/she is to traditional academic programs (Roueche, Milliron, and Roueche, 2003). Therefore, it is **STRONGLY** recommended that colleges and business do the following when developing, establishing, and maintaining a training program:

- Include the instructor(s) early, preferably during the initial planning process; if this means hiring instructors before the actual planning begins, do it; consultation with the business partner may provide names of qualified individuals as well.

- Insure that the instructor(s) have experience and an excellent record in the field they will be instructing (Woiwod, 2002). Indeed, the business people in the partnership may correctly insist on this requirement. It lends credibility to the program and provides the insights of someone who has actually worked in the field. The students also value that they are learning from someone “who has really been there:”

“I really liked my instructor...he tried to make it [dispatching] come alive to us and made us see the important things because he had actually had years of hand-on experience with it...our instructor was fantastic!”

The RDCP primary instructor possessed seventeen years experience in dispatching!

- Instructors need not presently be community college faculty; however, the instructors must possess the qualities of an effectiveness (Roueche, Milliron, and Roueche, 2003), as was clearly demonstrated in this study (see Chapter 4). Here, the primary instructor for the RDCP is actually a BNSF employee, not a community college employee. See also Woiwod, 2002 for other ideas about hiring qualified professionals as faculty for a specific training program.
- Allow the instructor to revisit and revise the curriculum as needed; for example, the RDCP instructor recommended updating some software programs and computers so that students would be able to work with current technology used by actual dispatchers. The instructor has been/is still working in the field he/she is teaching; give him/her the freedom to recommend what he/she feels is best for the students to succeed; better yet, listen to and act on his/her recommendations.

- Include qualitative data gathered from interviewing the instructor(s) in assessment, accreditation, and other evaluative reports. Again, this adds a further dimension to facts and figures and may speak more effectively to lay-groups such as legislators, tax-payers, and community organizations.

All the graduates and also some of the supervisors described the significant impact the RDCP instructors, particularly the primary instructor, had on student learning and, eventually, on graduates' ability to become effective and safe dispatchers. This was the clearest and one of the strongest messages received by the researcher during this study. It is surprising to her, therefore, that the role of the instructor is often overlooked or mentioned cursorily in the community college/business training partnership literature (see Chapter 2). This role is certainly recognized in traditional academic programs (Roueche, Milliron, and Roueche, 2003).

CONCLUSION

This study emphasized how important it is to also gather qualitative data when determining the success of a community college/business partnership training program. Perspectives of graduates, supervisors of the graduates, and also of the instructor were gathered and analyzed, which appears to be a unique approach for studying training partnerships. Analysis and study of these unusual perspectives demonstrate how vital the role of the instructor is to the success of the training program. Therefore, the following are highly recommended:

- Include qualitative assessment data in the evaluation of a community college/business training partnership in addition to traditional effectiveness measures.

- Involve the instructor(s) in ALL aspects of the training program: planning, development, implementation, and maintenance of the program. Listen to and seriously consider the instructors' recommendations; an effective instructor *knows* what it takes to produce successful graduates.
- Solicit graduates and their supervisors' perspectives on the program. It is important to include both recent graduates and those graduates who have been working in the field for some time. Use these perspectives to determine how the program is successful and how it needs to be improved. These perspectives also serve as a check on instructor performance.

It is this researcher's sincere hope that community colleges and businesses will incorporate qualitative data into assessment of their training partnerships. The method employed in this study is readily adaptable to any training program and can also be extended to career and degree programs that produce graduates ready to begin a particular job and/or career (for example, nursing). Producing graduates with the skills and knowledge needed to be effective in the workforce benefits all involved: college, businesses, community, and students.

APPENDIX A



TEAM BNSF

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Experienced Train Dispatcher

Location: San Bernardino, CA

Last Updated: 06/21/2002

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Position Synopsis:

Duties and Responsibilities:

Provide for the safe and efficient movement of trains over an assigned dispatching district, with BNSF's operating rules and practices. Concurrently, must also allow for the maximum utilization of maintenance forces by optimizing the time available for inspection, repair and capital improvement of the railroad track structure and signals. The dispatcher's principal duties include but are not limited to: - Scheduling the movement of trains to provide for safe meets and passes

- Managing unexpected events and emergency situations to protect the public, railroad employees, and railroad property
- Arranging for the use of track by engineering forces to permit timely maintenance while minimizing train delay and providing protection for such operation
- Maintaining detailed and accurate records of train movement and maintenance activities using a variety of manual processes and computerized software applications.

Qualifications:

Must pass Dispatcher's Aptitude Test. Must have 2 or more years experience as train dispatcher without a break in dispatching service. Must pass color qualifying exam, audiogram and company physical including drug screen. Extensive use of computer equipment with the Digicision Control System and Transportation Support System (TSS) required. Must be able to issue verbal instructions clearly and accurately. Must have a high school diploma or GED. Will work various shifts, holidays and weekends.

https://208.169.18.196/clients/bnsf/publicjobs/CanGetJob.cfm?job_id=10245&req=HE10245 7/2/02

Appendix B

Sample transcripts from two RDCP graduates and one supervisor (also an RDCP graduate) are included in this appendix as examples of typical interviews.

Interview with Subject #108 (graduate)

Researcher: This is an interview with Dispatcher #108. The first question is why did you choose to be a dispatcher?

Subject #108: Well, it was something that I wanted to do probably five years ago. I actually had a job at the time and I had it since I got out of college. I had been working there for three years for a brokerage firm and at that time I was at 100% commission. Basically I was selling products. I was going out, meeting people and selling investment products. For example to make \$5,000, I pretty much had to generate \$20,000 in commission, because I would get a certain percentage of that. But, like I said, it was 100% commission so I was pretty stressed out. I loved the business, but there was too much competition from my own company. I couldn't go here. I couldn't go there, because we were so saturated in the area. So anyway, I was looking for something that was like a salaried type job. For instance, a buddy I went to school with and we were fraternity brothers with the same major, I ran into him about three years after graduation from college. I asked him what he was doing and he had just started working for the BNSF. I asked him how much he made and he told me how much he made. He said that it was eight hours a day and it sounded like something I would enjoy. You know, where do I sign up basically and he gave me a contact person. I followed up with a phone call to the BNSF, but I don't remember what number I called or who I spoke to. They told me that they were not hiring at that time, but to check the website. I sent a blind resume off even though I knew from the website that I need a job source code, but I didn't have that. I just wrote the persons name that I spoke to on its attention and a cover letter hoping that I would hear back from them. I wasn't expecting to and I didn't, but I thought that I wanted to get a job in the transportation field. I thought that maybe later it might help me get in. So, I went to work for a trucking company. I actually worked for three trucking companies over five years. I was like a supervisor and was basically working 50 to 60 hours per week for less money. You were out in the heat and cold. You were outdoors. You had a roof over your head, but the wind whipped through there. It was a freight dock. I did that for five years and I would check the website, the BNSF website, about twice a year just at random. I lost contact with my buddy Carl. I didn't have any idea what his number was or anything like that. We had a mutual friend that we hung out with and that friend moved out of town without telling anybody so I didn't know where Carl was anymore. Anyway, I would check the website a couple times and I did that every year for about five years and they would just have a few things listed on there. I never saw dispatching. I would call the 800 number. There was always a job out in the field and I didn't want that. I wanted to be a dispatcher. Then I guess about a year and nine months ago now, I was looking at the website again. I don't know if they redesigned the website or if I just looked someplace different, but I'm thinking that they may have changed something. I looked under employment and under

some different categories. I clicked frequently asked questions and then out of like twenty questions, one of those questions was how do I become a dispatcher. I about fell out of my chair. I was like, have I missed this for five years? How long has this thing been up here? You click that link and it takes you to the county college that hosts the class, which it tells you more information about the class. I went to that website and got the number off the website. I called the school and said that I wanted to come down and talk to you guys. So I went down and talked to them and they said that it was still six months away before the next class rolled around. So I thought that I would wait, even though I knew that there was no guarantee that I would get in. There were 25 people that tried to get in and they picked 7 of us and then they hired 6 of us. Of course, then you're on probation until you get 60 workdays alone. That took six months and you really just keep jumping through hoops and hoops and hoops and hoops until finally you get through your probation and you can finally relax. I guess this is a job that I have wanted now for about 6 _ years, but I wanted it for five years before I ever got it.

Researcher: Wow, so what attracted you to it? The regular hours and the salary?

Subject #108: Well, the salary number one. I didn't have a fluctuating income. I didn't realize at the time that you go to work for nine hours and you get paid for eight, because you get a 30-minute lunch and two 15-minute breaks. But here, you get a straight eight. You don't have a lunch period or a break period. If you need to get up and grab something to eat, you go and get it out of the vending machine real quick or your bring it to work with you and eat it at your desk. If you need to use the restroom, you get up and use the restroom and come back to your desk. Literally, its 40 hours a week and I was making more money and I didn't care what shift I worked. I worked all different shifts before and I was used to standing up, sweating, working 60 hours a week and making less money. Now I'm indoors and sitting at a computer. It was basically a job where my degree may have actually meant something, because there were some times when I was questioning myself on those docks. What have I gotten myself into?

Researcher: What was your degree in?

Subject #108: It was marketing.

Researcher: Oh, really?

Subject #108: Yes, I got a business degree, but you know I was out there sweating. I don't mind physical work, but I'm out there with people working next to me that might not have a high school education and the people that I'm supervising are making as much money as I was. They get overtime and stuff like that and I was salaried. You know, you just scratch yourself and ask what should I really be doing?

Researcher: Right.

Subject #108: I enjoyed it and I enjoyed the people that I worked with. I always get along with whomever I work with, but I just didn't feel that it was self-fulfilling really.

Researcher: Right, I can appreciate that. Being a dispatcher is a lot more self-fulfilling?

Subject #108: Yeah, definitely. Being a dispatcher is a job that is fulfilling and it's the job that I'm proud to have.

Researcher: Great! You kind of told me why you selected the program. You found it on the website and that's how you found out about it. Then you went in and...

Subject #108: It wasn't easy to find though.

Researcher: Huh?

Subject #108: It was not easy to find. I think that if it was easier to find, people might benefit more.

Researcher: That's a very good point and that is something that I'm looking for are things like that, because that could be very helpful to them.

Subject #108: Yes, because it's buried under frequently asked questions. When I went in, I was thinking that I was looking for a job. Once you click that link and another link and you finally get to that website, you learn that ok, maybe this why its not directly listed under employment. It says clearly that its not a guarantee of employment.

Researcher: Right.

Subject #108: It's just a chance to get into the class and BNSF used it as a hiring tool. There is no guarantee that they will hire you. Maybe that's why they don't list it clearly. You have to dig for it and like I said, I don't know if it was always there and I missed it for all those years or if it was something they recently put up. I really don't know.

Researcher: Ok, you make a really good point there. That's good, thank you. Can you tell me about actually being in the program? What it was like to be in the program.

Subject #108: Ok, well, the first thing I did before I even got in the class I was looking at the school website and they had some little link of some books that I thought were part of the class. So I thought I would get a leg up and there were two books that I thought were part of the curriculum. I bought one of them that I thought would be most beneficial. Here I was reading that thing even though it was six months before I could get the chance to get in, but I was reading it because I wanted to be prepared or at least

act like had some basic knowledge of what was going on or at least show an interest. Do you know what I mean? To go out and do this on my own before I even have the chance to get in the class. To go out and buy these books, read up on it and to try to gain some knowledge. So this book was more geared toward like here's the rail, here's the parts of the rail, here's the locomotive, parts of the locomotive, different types of trains, different this and that. It was kind of more of a technical manual, but not anything really to do at all with dispatching.

Researcher: Ok.

Subject #108: The trains in general, the track and things like that along with the history of it. I was reading about the history of it. But when I got in the class, I realized real quick that we had a big huge manual and no little books like I had. I realized that it was completely different from what I had thought. I had no idea going in how technical it really was. I'm someone, everyone is different, some people always have to study, study, study to make things sink in and other people are naturals. They will read over it once or twice and it pretty much comes natural to them in whatever they do. I was always the type since I was a little kid that I always had to beat it into my brain. So the class was stressful. I guess it was the amount of material that seemed kind of overwhelming. I remember in class that it seemed like you've got the big manual and your going all the way through it. There was never a pause and reflect on what you've learned so far. It is always learn and now we are going to give you some more, learn it, put it in your memory, learn more because you have got to know all of this. If you could just pause and let it sink in for a while, but there is just always something new. It was super super challenging. We actually had one guy that is no longer there that went through the class with us that had a masters degree and he said that it was harder than any masters class that he ever had. So, it was challenging. It was a lot more challenging than what I thought it would be.

Researcher: Wow.

Subject #108: In the class you have, I think two big exams, like a midterm and a final and then a computer portion also. You have to pass all three, it's like a 90 or above. Leading up to that though, you have like a weekly test. Every week you have one based on what you learned that week. These are really just barometers. They kind of show you where you are at the time. It's the big exam that really counts. This is just to show you where you stand right now. There was like three in a row where I got a 70, then 75 and there was one exam where about 80% of the people failed. I think I got like a 60 or 55. Mr. Lacey told us that you have to have a 90 on the midterm and final, so you want to shoot for a 90 minimum on these weekly exams. When people aren't making 90 on these exams, your like gee, am I going to make a 90 on the midterm and final? It's a cumulative thing. You just keep beating it in your head and it starts making sense later. It is a very challenging class. I think I lost 15 pounds.

Researcher: Oh my goodness!

Subject #108: But I needed to, because I actually put on some for the first time a little bit. Maybe stress a little bit, plus maybe I just wasn't eating so much because I was studying when I got home. It worked for me!

Researcher: Did you work at all or go to class fulltime?

Subject #108: I went to class fulltime.

Researcher: Ok. What would you say was the most valuable lesson or lessons that you learned in the program?

Subject #108: Most valuable lesson?

Researcher: Yes. Or the most useful things you did.

Subject #108: The most useful thing we did was that Mr. Lacey drew a diagram up on the board, kind of like a mock track and mock train and said now we are going to role play. What are you going to do here? What are you going to do here? He knew we were new and we were trying to struggle with it. I think that kind of let us know what we were looking at. Do you know what I mean? Kind of what was going to be expected of us.

Researcher: Ok.

Subject #108: We are a little bit removed from the class so I can't tell you exactly what it was. You know?

Researcher: Oh no, that's ok.

Subject #108: Things might have stuck out that I don't remember now. I thought the role plays were good and the small class I thought was good. We only had seven people in our class so that was good, because if you have a lot of people you might not ask questions.

Researcher: Right.

Subject #108: You might feel that there isn't enough time for your question. With seven people though, you could use whatever time that was needed.

Researcher: Great. Were there things that you learned that when you first got on the job you found you could directly apply them right away?

Subject #108: Once you got settled in, I would say yes. Here is one thing that I thought they could improve on was that when your going through the class, its all manual. It's all paper and technical manuals up to the first two thirds anyway. Then the last third of the class you actually get to sit down at the simulated digiton screens and see the train movements like your going to see at work. Before that though is all paper, but once we set down at the computers and everything its like what its going to be at work. Before that your going to teach us what we've got to know before we sit down and get to that point. We had a couple of weeks on the computers, which is good. Then you have a week that you spend at the BNSF observing and if they make you an offer, you go on a road trip. I think we had three weeks to make a road trip and then you go back to BNSF and you do an orientation. Towards the end of the orientation they put you back on the computer again. At that point it was like a month since we have set at a computer. So we were struggling with the most basic things. How do I turn this thing on? Those types of questions that you don't remember anymore, because a whole month has past and you only got a two week crash course at the school, or three weeks how ever long it was. I thought the gap was really long between the end of the class and before you got to actually sit at work and apply it. Like I said, they want you to go on that road trip and do this or that. During that month you tend to forget stuff, but it all comes back to on their behalf when you first start your not sitting by yourself. Your training so you've got people there that have been there for years and you can bounce questions off of and ask them again. They are going to watch you real close. It's just something that made you feel uncomfortable I guess, but you can live with. Like I said you are training so much once you get there with someone to hold your hand.

Researcher: Then it's ok.

Subject #108: Ultimately, yes. I thought oh man, they shouldn't give us a whole month off between out of class and before you actually sit down and applying it.

Researcher: I understand.

Subject #108: During that month, stuff just starts evaporating. It does come back to you, but we just got pounded for three months with all this and your head is so full and you're ready to apply it finally. Then you have a month where you're not in school or anything. With the road trip, it's not even on your mind really.

Researcher: Wow.

Subject #108: And then to come back and we are going to sit you right back down and show us what you know and we are going to go over this orientation with you and we are going to go over this stuff again. It's like, oh gees.

Researcher: It sounds a little frustrating.

Subject #108: It was to me, but you just deal with it.

Researcher: So you feel the railroad dispatcher certificate program adequately prepared you to be a dispatcher?

Subject #108: Yes, I do. Of course there are some things the class is never going to teach you. You won't know until you get there. It's kind of like book smart versus the real world. Actually in class you do get pretty close to the real world because you have the simulated computers and all this stuff, but until you actually get there.

Researcher: Its real world stuff.

Subject #108: Yes, this is the real deal. It's not make believe anymore. There are real humans on those real trains out there. I thought the class was really, really, really, really good, really good.

Researcher: You mentioned the real deal and humans and stuff out there. It sounds like safety is a big emphasis.

Subject #108: Right and that is pounded into your brains at class.

Researcher: Good.

Subject #108: Absolutely. Safety, safety, safety, safety and of course Mr. Lacey has stories about things that dispatchers did wrong and people lost their lives and things like that. It's not a position you want to be in.

Researcher: No. I would think that would be horrible.

Subject #108: Yes. You know right from that start. Hopefully someone would get weeded out before they would even get in the class anyway if they were lackadaisical about something like that. Yes, its stress right from the get go. Safety, safety, safety. You don't want anybody to get hurt.

Researcher: No, you've got big equipment running around out there.

Subject #108: You on probation for 60 days and basically it takes you an average of six months to get your 60 days so you know for any little slip up, if they think your not cutting it, your out the door. So your extra, extra, extra cautious. Not that we're not now, but you're just kind of paranoid cautious. You don't want anything at all to go wrong, because if they don't like my attitude, if they don't like my hair, anything. If certain people here don't like me for my personality for any reason, they can let you go before you get your 60 days. With that hanging over your head, it's all business. You don't really relax until you get your 60 days.

Researcher: It sounds really stressful.

Subject #108: You have that thing hanging over your head. You've jumped through all those hoops already and that's the last one. I'll tell you that when I was going through there, I felt good about everything once I was at the BNSF until I hit like day 45 or 50 or something. I felt like Pearl Harbor had just happened. I was working with someone that the crews on the field don't like him. He told me I was too nice to these people. He told me not to be so nice and blah, blah, blah. I made the mistake of telling him once when I was on probation, but working alone I had two crews call me out of the blue and say, "Hey, that was one of the best trips I ever had". Because we are straight out of class and we are going by the book. I'm letting these guys know before they pull up to the signal. They are 15 or 20 miles away from the signal, I'm telling them, hey your going meet three trains there. So they already know that they are going to be stopping and their going to be meeting three times. Some old timers or whatever don't like talking on the radio or tell them you'll go when you get a green signal. But, they appreciated that. I think I made a mistake telling this guy; hey I've gotten two calls from the crews telling me this and that. I think it just rubbed him the wrong way. I think it was like day 45 or 50 when I thought I was pretty much home free and everything was going so good. Then out of the blue, like a board in the face you turn and you weren't expecting it and something just hits you right there. June had me come back to the back office and my chief was there. They said they had some questions for me and some concerns and June had been giving me weekly evaluations and all my scores had been good with good comments and everything. So for this all of a sudden to happen was like out in left field. I thought the writing was on the wall for me. I thought they only need so many dispatchers and they wanted to get rid some and this was the beginning of the end and this was something for them to hang the hat on to tell me I'm no longer needed. I was really worried and I went up there the next day and pulled my chief aside. I told him that I wanted to talk to him again and he put me at ease. What it was is that the person I was working with his personality and mine rubbed him the wrong way. I was too happy.

Researcher: Oh, and he was grouchy.

Subject #108: Yes. He told me I was being too nice to the crews and you think you know it all. I never said anything to that affect, but he did not appreciate that.

Researcher: No. It sounds like he had the issue, not you.

Subject #108: That's true. Other people said, "Oh, that guy is an asshole". You would hear that from 5, 6, 7 people. All the crews hate him out in the field. Finally, he bid off that job and the crews were happy to see him go. In the morning, the maintenance people would call and want to work on your track. Some people would keep shoeing them off... call me back in an hour; call me back in an hour. I was the type that wanted to get them out there right away. I want them out there to do what they have to do. Other people just don't want to deal with them. They say I'm too nice to the crews. In your first 60 days you also have to deal with the personalities and in the field they can't see you, but they talk to you everyday along with the people that you're working with. Some people will tell you right from the get go. The second day I was training with somebody. He said, "Are you training with me again? Damn it, they know I don't like students". I wasn't the only one that got that response from working with people. Some people don't like training and they probably shouldn't put trainees with people that don't like training.

Researcher: Right, it sounds like you'll be a good trainer.

Subject #108: I won't be so grouchy.

Researcher: Yes, because you remember what it was like.

Subject #108: That's right. Everybody is different. Some people are grouchy and some people aren't. That is the way they have always been and that's the way it will always be.

Researcher: We've talked a little about this, but if you could add to it, it would be great. What would you keep and what would you change in terms of topics studied in the railroad dispatching program? What were the strengths and weaknesses?

Subject #108: I thought this class should be longer. Like I said, I just don't feel like you were able to take a breather. I forget how long it lasted, maybe 12 or 13 weeks. They could easily make this 16 to 20 weeks and I thought they should. I thought they could easily expand this class and have more time to spend on this stuff. As far as ways to improve it, boy, I thought the class was really well run. Part of it had to do with the instructor. I have nothing but good things to say about James Lacey who was the instructor. He was a super, super nice guy who cares not only about you getting a job, but he wants you to be happy in any way possible. He told us on the first day of class that he prayed for us in church on Sunday before I even saw any of you. He is someone who genuinely cares about the class. He cares about the classmates. If we needed any help with anything, it didn't even have to be class related and we could go to him and

talk to him. You knew from the get go that you had someone on your side from day one. This guy wants me to succeed. He bent over backward for us. We had one student that didn't end up making it, but spent so much time with this person. Some people didn't appreciate it, because it was taking time away from the class, but he would bend over backwards to help us.

Researcher: They didn't appreciate that this other student was taking up time?

Subject #108: Yes. This person really, really, really struggled and did not end up getting a job and they shouldn't have. That probably was the only person that we felt that way about as a class. For example, class would start at 8:00am and she might go into his office at 7:40am and Lacey might come into the class at 8:20am and she is the only one missing from class. The only ones missing were him and one other student and they would come in at 8:20am. Also, lunch would be over at 1:00pm and they would both be missing until 1:20pm, because she would go into the office and say that she wasn't getting this or that. He bent over backwards to help her. Once it started cutting into our class time, like class would start at 8:00am or we were supposed to be back at 1:00pm, now we were like ok we are supposed to get out at 3:00pm, but now we might get out at 3:30pm. Do you follow me?

Researcher: Yes.

Subject #108: The way I see it is that if she is having so much problems, maybe she should have done it after class. Do you know what I mean?

Researcher: Yes, I understand.

Subject #108: But don't take away time from the class just for you. So that is one thing that got on peoples nerves. It didn't bother me a whole bunch, but I think we kind of saw the writing on the wall for that person. She just really, really, really, really struggled and I don't thing any of us would have felt safe about this person working for the railroad. She didn't get offered which is probably a good thing.

Researcher: I understand.

Subject #108: A sweet person, but some people can get it and some can't.

Researcher: Right. I understand. When did you go through the program? Do you mind me asking?

Subject #108: January of not this year, but the year before.

Researcher: So, 2002?

Subject #108: That's right.

Researcher: When was your first day hired at BNSF, if you don't mind me asking?

Subject #108: My date of hire?

Researcher: Yes.

Subject #108: 04/29/02.

Researcher: Ok, so you've been there over a year then?

Subject #108: Yes.

Researcher: Wow, that's great! Congratulations!

Subject #108: Thank you. Like I said...you can relax after you get your 60 days alone.

Researcher: Do you still like it?

Subject #108: Yes I do. The people in my class, we go there and we see the guys that have been there forever. Plus we are all Texans. They had the class here so all of us were from around here. A lot of these people from down there kind of think different than we do too. BNSF brings all these dispatchers to one location. A lot of these guys are from up north and the west and they are a little more liberal in thinking and everything like that. We are more conservative down here. A lot of these people have worked for the railroad their entire lives. You hear them bitching, for a lack of a better word, about little things and this and that and we look at each other and go...can you believe it? Some people tell us this too, you won't be smiling forever, just give it a couple years and it will wear off real quick. I appreciate everything. I know where I came from and I know the struggles I have had in my own life from a kid on up and the jobs I've had. So I appreciate what I have and what I do and what I get paid for. I can't see myself complaining.

The old timers say, "just give it time", but I don't see it. That's just not my nature. I appreciate what I have. If you've worked for the railroad your entire life and you've always made good money, you don't know what else is out there. You don't know how good you've got it.

Researcher: Right. You make a good point. You sound like you would make a really good dispatcher and a descent person to work with.

Subject #108: I try to be.

Researcher: That's good. Ok, I've got one more question for you. Would you recommend the railroad dispatcher certificate program and if so, to who?

Subject #108: Well, you probably already know from the tone that I definitely would recommend it.

Researcher: Yes, I figured that.

Subject #108: I'll tell you this. There is not enough people that know about it. If they really want the best of the best, I'll say this now that I'm already in. There were only 25 people who tried to get into my class. Now there are 200 trying to get in. When I went and there were 25 people trying to get in, about a third of the people didn't belong there. They just happened to hear about it or read about it and they thought it might be neat or something. You look at them and say this person is not cut out for this job. This is not, do you know what I mean?

Researcher: Yes.

Subject #108: It's like seeing someone who is a bouncer in a bar or something, you know what I mean. Just kind of a person who says....Hey, I heard about this and hey, we'll see what happens you know.

Researcher: So they are really not well informed?

Subject #108: Yes. I don't know how they found out. People like us that ultimately got hired were different from that. We knew this is what we wanted to do and we had known about it for some time, most of us. Some of the people there had buddies that were in the railroad or knew somebody or had relatives in the railroad or something like that. I was surprised that for a job that good that there weren't more people trying to get in. I can say that now that I'm in, because when I was going through there I wanted as few applicants as possible to increase my odds.

Researcher: I understand. I definitely understand.

Subject #108: I'll tell you this too, I was really surprised there was this one guy who was not in the class. I believe they did interviews over a three day period. First you go there and take a test that really didn't have anything to do with the railroad, but some psychologist put it together and an engineer on another part. Supposedly if you do good on this, you would do good on dispatching. You just look at this thing and scratch your head and wonder how does this apply?

Researcher: Right.

Subject #108: I was the only one taken out of my group of like 10 or 12 people that interviewed with me and then there was another class. Anyway, there was one guy who was a pilot for the air force or something and you think military where they are flying planes. He is technical and he is used to stress and all that. I thought he was a shoe in. You know. I would talk to him in the hallway for a little bit and I thought that this guy was good. I couldn't believe it when I got in that class and he wasn't in there. I think that one part of it might have been was that they are looking to see how you react to stressful situations maybe. After you do the little paperwork test, you have to interview to get into the class. Right?

Researcher: Yes.

Subject #108: You are before a panel of three people, which is probably good because you are getting three peoples ideas on things. Somebody might pick up on what somebody else doesn't or vise versa. Its not just one persons judgment. It's three peoples judgment, so you get a more fair judgment. When we were interviewing, he was the first interview and when he came out he was sweating. He said that was the most stressful thing and they really grilled him. It was like he looked like he had been through the war. He really did! Then I was next. I went in there and when I walked out. When I was in there, I felt like I was talking to my three best friends. We were also talking about other things like interests we have. It was so comfortable. I guess that might be what they were looking for too. They asked me when I got to the BNSF how do you deal with stress? I think if you can't handle the pressure cooker of the interview and your all stressed out over it, then your probably going to get stressed out in front of the monitor. Like if the phones are ringing and you've got ten different things going on. Do you follow me?

Researcher: Yes.

Subject #108: So, I think a good candidate for that class is somebody who has a good demeanor and one that doesn't get uptight easily.

Researcher: Doesn't get stressed out easy.

Subject #108: Yes.

Researcher: That makes sense. I would think that dispatching would be a stressful job and that you would pretty much have to keep your cool and not get all freaked out.

Subject #108: Yes. They asked me what would you do. I said that if I got completely stressed out, I love the outdoors and I would probably have to step outside for a few

minutes to get some fresh air and then I would be fine. I would just clear my brain for a minute. Just get some fresh air and I would be fine. I haven't had to do that yet, luckily.

Researcher: Good! Good! Well, is there anything else that you would like to add about the program that we haven't covered?

Subject #108: No. I think it's a good program. Like I said, I think that if the program was easier to find of the website.

Researcher: On the BNSF website?

Subject #108: Yes. It was hard to find, at least for me. It took me six years, but then again I don't know if I missed it or if it was buried deep enough where you have to dig and dig and dig to find it.

Researcher: Right.

Subject #108: There was just some confusion. It is just a play on words I think, was it employment or opportunity for employment? They didn't list it as employment.

Researcher: I hear you. Yes.

Subject #108: If someone is looking to be a dispatcher, they are going to look under employment and not anywhere else.

Researcher: Right. That's exactly right.

Subject #108: They need to make that out more in the open, if they want more dispatchers. If they don't, then keep it buried.

Researcher: Right. Ok, I'm going to shut off the tape.

Interview with Subject #107 (graduate)

Researcher: We are here with Subject #107. This is for the Community College business partnership for training railroad dispatcher's dissertation that Beth Krueger is the primary researcher on. Ok #107, could you tell me why you chose to become a dispatcher?

Subject #107: Well, I had gotten an airline dispatching license and worked for the airlines and that was almost up until 9/11 if you want to call it. The airline industry was having a hard time and a friend of mine happened to be working for the railroad and was able to let me sit in with another dispatcher for a while and it seemed like an interesting career and it pays well.

Researcher: It pays well?

Subject #107: It pays well for, I don't want to say for an entry level position into the railroad, but for someone coming from the outside to be able to get to that level it pays well. The railroad has a history of good benefits, good retirement and is fairly stable in employment.

Researcher: Would you say you enjoy dispatching?

Subject #107: Yes, I'm enjoying it right now. Some days it's like any other job and some days I'm wondering what am I doing? I'm still in the learning process so each new situation is something new that I have to learn how to overcome. Of course I get help when I can get it. Like I said I'm pretty new to the situation and pretty new to the job itself so there are still a lot of situations and things that I haven't been through.

Researcher: When did you go through the dispatcher-training program?

Subject #107: That would have been the fall semester of 2002, from about late August to mid November.

Researcher: And then you did your internship with...

Subject #107: Burlington Northern Santa Fe.

Researcher: Ok, and they hired you on after that?

Subject #107: Yes they did.

Researcher: Can you tell me approximately what month you were hired on and year?

Subject #107: My official hire date was December 2, 2002.

Researcher: Wow, that's great! Congratulations!

Subject #107: Well thank you.

Researcher: Why did you select the Tarrant Co. College Railroad Dispatcher Program?

Subject #107: I don't know how many there are in the United States, but I was born and raised in Dallas Fort Worth and at the time of this I was living only 10 to 15 miles away from the school and Burlington Northern is based here in the same area. So I can get to work between 15 and 20 minutes. Then of course the program is at the Tarrant Co. College there.

Researcher: Tell me about being in the railroad dispatcher program.

Subject #107: Well I'll tell you what, being an outsider to the railroad it was pretty tough. It really was, because you have to simulate a lot of regulations and at the same time you have to try to understand how it fits in the railroad itself. There is a lot of jargon the railroad uses so if you had a bit of railroad background it would be easier. But coming straight in was like learning a whole new career in three months.

Researcher: Oh my goodness.

Subject #107: The teacher who taught it teaches well, but he even told us that the first couple of weeks it's like "What am I learning"? It finally came together, but like I said coming from the outside in is not an easy step to take.

Researcher: What are some other things that stand out about the program? It sounds like it was very hard at first, very difficult and very challenging.

Subject #107: Oh yes it was very challenging. You have got to learn what they call the G core which is the general code of regulations. It is based on getting employment with BNSF, because they are kind of the backers behind it. You can still get another job with another railroad, if you want that. There are some guys that are in the course that already work for another railroad and their company sponsors them to go through it so that they can become dispatchers with their railroad.

Researcher: Ok.

Subject #107: An example was a gentleman from my class who was from the Alaskan railroad.

Researcher: Oh wow!

Subject #107: My understanding was that he was the second and possibly a third one was coming. It was kind of a deal that they set up. The school itself supplies a lot of the building, but BNSF did kind of co-op type thing cooperation between the two. The ones that teach it are actually BNSF dispatchers, but they teach through the college and you can also get college credit. At one time they did have an associates in Railroad Management, but the course has been dropped due to lack of interest.

Researcher: So you got a certificate for railroad dispatching then and not an associates degree?

Subject #107: That's correct. I got a certificate.

Researcher: Ok. What else can you tell me about the program?

Subject #107: Well, the program itself is set up pretty good. You come in and most of the people in the course might know a little bit about the railroad. The course that I went through was at the college where most of them are from the outside. So with the lack of knowledge of the railroad industry as working inside of it, it's not one of those basket-weaving courses we always talked about. You actually study every night. You have to because it's a pass or fail. There is no gray margin of A, B or C. The mid-term you have to make an 85 or better to go on. One test on the computer system is 100 or fail and the other one is 90 or better. One thing you have to understand now is that's for BNSF to hire you. You could not pass that one part and not go to work for them, but you still kind of pass the course and get a certificate and go to work for another railroad. That is just the standards for BNSF to put on for the people to go through and get hired by them.

Researcher: But the other railroads might have different standards or just require a certificate?

Subject #107: That's possible; it depends on who you're going to. They have had people go to other railroads.

Researcher: What other railroads? Do you know?

Subject #107: There was the CXS. I don't know if anybody has ever gone there, but we had a name to the personnel there.

Researcher: Ok.

Subject #107: I think some Amtrak. Oh gosh, I'm not really sure of all of them. Most of them, well I don't know the exact percentages or anything, but they do have some that do get jobs that can't have gotten jobs elsewhere that maybe came back from maybe the short line railroads. Like I said, there have been people who went on to other railroads.

Researcher: Ok. I can probably get that from the school too.

Subject #107: That's possible.

Researcher: Can you tell me what a typical day or week was like in the Railroad Dispatchers Certificate Program?

Subject #107: We went Monday through Friday, pretty much 8 to 5.

Researcher: Wow.

Subject #107: About an hour off for lunch. Sometimes we got out a little earlier. It just depended on how the day would go. Pretty much you would go through what they call the general code of regulations the G core and we would go chapter by chapter and you would have two or three tests a week, maybe even four. It just depended on how much we would cover.

Researcher: What kind of exams were they?

Subject #107: Fill in the blank, true or false, multiple choice. It just depends. The little mini exams just let you know where you were at. When it came to the mid-terms and finals, they were a mixture of fill in the blanks, true or false, multiple choice. I think that was a mixture of them. I think the first mid-term was like 120 questions and the final was like 240.

Researcher: Oh my goodness.

Subject #107: Yes. It covered a lot of territory. Then you also had a final on the computer which they called Digicon. It was where you would look and see where the trains were going. You had different scenarios.

Researcher: So they would put a real life scenario up there and have you work through it?

Subject #107: Yes.

Researcher: And that was on the Digicon?

Subject #107: Yes and that is the actual computer. It would be like radar for our air traffic controllers? You know that tells you where the planes are, well this tells you where on the track the trains are. They have a little red bar and you follow them as they go along.

Researcher: Oh ok, cool.

Subject #107: It's a pretty neat system, but like I said you start out about 8 in the morning and you start up where you left off the day before. You might have a test in the morning. They were anywhere from 20 to 40 questions depending on how much material you covered. They were fill in the blanks or true false. We would get done and he would grade them real quick and we would review them and then go on to the next chapter. That is what you did. We had one field trip out to the alliance yard, which is just north of the college. He showed us some stuff for the new people who didn't understand the railroad.

Researcher: That's in Saginaw? Where all the grain elevators are?

Subject #107: No, no this one is in Blue Mountain. That was one of the yards. That is a another yard. This is another one just a little north to that. It's a new one they built that is a lot bigger yard.

Researcher: Ok. What was the most valuable lesson you learned while in the program?

Subject #107: The most valuable lesson I learned?

Researcher: You can pick a couple if you want.

Subject #107: The most valuable lesson would have been study hard! Study, study, study. Don't think you can breeze through it, because it is almost an information overload.

Researcher: Ok.

Subject #107: You just try to learn so much information in such a short time. My not having a background in it so everything was new. Trust the teacher. We at one point thought it was so much information and the teacher called it the ooze. It felt like it was oozing out your ears. You had so much there and you didn't know what to do with it. You learned so much information and you hadn't put it together yet.

Like blocks. He used to say put it in the drawers. This one goes over here and this one goes in this drawer. We had to learn to trust him, because he had good experience about teaching. It taught me to trust the experience, because your not a know it all.

Researcher: Are those lessons that you have carried to the job today?

Subject #107: Oh yes. Another thing that I carried to the job is that everybody does something a little bit different, because people are different.

Researcher: Right.

Subject #107: Follow the rules as strictly as you can, because the government is very enforcing on them.

Researcher: I'm sure, yes.

Subject #107: Once you learn the rule right, make sure you follow it. There are the federal rules and BNSF goes a little farther and they say this is what we want our dispatchers to do in that case. Like when you've got the screen with all the trains, if they are doing work or something make sure you protect the trains at blocking and switches and like that. They have their own rules in certain situations that go a little farther.

Researcher: Ok.

Subject #107: So you have to learn those, because you have to use them daily.

Researcher: Yes, I would think so. Do you feel the program adequately prepared you to be a dispatcher?

Subject #107: I guess it would have been nice if it could have been a little bit longer. Just because of all the information that you have to get into, but at the same time it's one of those things where it's nice to get it done, get it over with and get started.

Researcher: Right.

Subject #107: If it could have been a little longer to teach you a little more about the railroad itself.

Researcher: Like what for example?

Subject #107: Like jargon. I mean the railroad has their own terms for things. For example, a kicker which is a train that if it has to apply its emergencies somewhere

along the line. If they stop too fast, they can lose air pressure and it causes it to go into an emergency stop.

Researcher: Ok.

Subject #107: Which means they have to go out and they have to check the whole train and that means walking it. Then there is there the knuckle which is the joints between the trains where they hook up.

Researcher: Right, the coupler.

Subject #107: Yes the coupler, but they call it a knuckle.

Researcher: Ok.

Subject #107: Then they've got something like a reverse knuckle broke or something where it is broke on the inside. You know, and you've got different terminology for the cars and engines, like a pig.

Researcher: That's a piggyback.

Subject #107: Yes. You're dead on the wall which means the train crew has their hours of service which are up. Then there is a dog catch crew which means that they are going out to get a train that was tied down somewhere or they are going to relieve a crew. Things like that. When we were hired on they gave us a book. There was a lot of terminology. Sometimes it was just so hard to remember it because you have the eastbound control signal on the west end of so and so. It's important to know all of this because you have to know what to do. Like I say this all helped out a little bit. The information that your taught, they have a time frame that they have to teach it in. If they made it into two semesters I don't think I could have made it through it, because I was having to pay for it myself.

Researcher: Right.

Subject #107: So it would have been tough. I guess it's kind of one of those things where they found the best medium that they could, but in all purposes it would have been nice if it could have went a little longer or if you had a little more preparation on like I said the jargon or other knowledge of the railroad industry itself.

Researcher: So you would have liked to have a little more background on railroad history or how the railroad is run?

Subject #107: Maybe a little bit. He tried to do as much as he could, but he still had to cover all that material.

Researcher: Right. Right. What was the name of the book, the jargon book?

Subject #107: Oh gosh, It was just one of the BNSF railroad. It was one of the things they put out.

Researcher: It was a BNSF publication? An in-house, like their timetables?

Subject #107: Yes.

Researcher: Ok. This is kind of a follow up question to what we were just talking about so if you want to expand or whatever that would be great. What would you keep and what would you change in terms of topics studied in the program, strengths and weaknesses? We've covered the jargon. Are there other things that you would like to add or do you want to expand on the jargon?

Subject #107: No. I think in the book there are some of the things that you might not hear or some terms that are just used by maintenance or whatever so that's fine. Let's see, I don't know if there is anything I would change because you have to go through so much of that information. You have to be taught, because that is required just to have the basics to get in and to understand what you're doing when you start to work. Anything really, I don't think there is anything we can actually take out of the course.

Researcher: Ok, good.

Subject #107: There are a few things that we kind of bypass or skim over very lightly, because they are not used at Burlington Northern.

Researcher: I hear you.

Subject #107: There is nothing major with the rules. It has to do with different types of like well like when you give maintenance away some time on the track. We call it track in time. There are some trains that use OCS which is another way of doing it.

Researcher: So just terminology for the same thing according to the railroad.

Subject #107: Yes and the paperwork is a little different too. Some things are being phased out that they still have in there and he might highlight it real quick, but like I said there really isn't much they could take out because most of the stuff we are taught are the basics that need to be known.

Researcher: And that's helpful on the job?

Subject #107: Oh you have to. The dispatching course that your taught your taught the rules and regulations what the dispatcher manual or kind of supplement I guess if you want to say, but it's Burlington Northern's portion telling you this is what we want done in addition to what I was telling you earlier. You have got to learn that going in and you use it all the time.

Researcher: Wow.

Subject #107: There are somethings you use more than others. Some situations you come into, I won't say rare, but you don't see them as much and others you see everyday.

Researcher: What is a common situation that you might see everyday?

Subject #107: Oh, you see everyday where a train needs to do some work in a siding. Say there are cars already there and you have got a couple of different ways you can get their trains officially in there. It depends and we call it the term flagging. But it's officially giving them the authority to occupy the space because it's already occupied.

Researcher: Ok, because there are already cars there?

Subject #107: Yes.

Researcher: I think I have heard that on scanners.

Subject #107: Then you have the terminology that they can take a switch to that siding to where they can do whatever they need to do for switching moves. And that stuff is almost a daily thing. It depends what railroad your working on and depends on what type of territory you have too. The CTC is the one I told you with the Digicon? Where you can see it happening, not really in front of you, but you can see where the trains are and where they are at. There are track warrants which is kind of like the old days of train sheets. We still have territories like that.

Researcher: And you learned about both in the program?

Subject #107: Oh yes.

Researcher: Ok.

Subject #107: Like I said, it's kind of based on prepping you for Burlington Northern Santa Fe, but the information you learn can be taken to another railroad. They might have a little bit of a twist on a few things, but it is still kind of the same basis.

Researcher: Ok. Would you recommend the program?

Subject #107: If someone is interested and wants to be a railroad dispatcher? Yes I would recommend the program. You pretty much have to go through it to work for BNSF. I don't know how the other railroads do it if you just try to go to work for them like Union Pacific or Norfolk and Southern or any of the other ones. I don't know if they have their own little programs they send you through or not, but this is the kind of program that someone off the street can come to, go through it and have the chance that they can possibly go to work at other railroads.

Researcher: It gives them an in whereas they might not have it otherwise.

Subject #107: Right. It's not a guarantee. They don't guarantee a job by going through this course, but you're a leg up, because one thing you do know is you know G core. Some railroads don't use G core. They use something a little different, but it's pretty close to the same.

Researcher: So it's basic skills.

Subject #107: Yes it's a basic knowledge of federal regulations.

Researcher: Wow.

Subject #107: So it gives you a leg up on someone that doesn't have it.

Researcher: Yes definitely. Is there anything that you would like to add about the program or maybe your fellow students and how you dealt with it or anything like that?

Subject #107: I'll tell you what, the classes were usually pretty small. To them a big class would be 8 or 12 people. Ours was ten. Two people already had jobs with other railroads so there was eight of us and that was considered a pretty good size class. You learn to really help each other out. It was really good. We tried to help each other out as much as possible, especially the one guy who already had G core experience because he was a conductor for the Alaskan railroad. He was going through the course for a review of G core and to learn how to apply that to be a dispatcher by the other stuff.

Researcher: Ok. And that kind of applies to your job now where all of you guys help each other out?

Subject #107: Yes. I can talk to the next guy and say, “Hey, what do you think about here or here”? Or they have a little department called the managers of dispatcher’s practices. They are the rules guys. There is usually one person on duty somewhere around. You can ask them rules questions or scenarios. You can say, “Hey, I’ve got this. Is it legal or not legal”?

Researcher: Ok.

Subject #107: They are the official word so..

Researcher: And you do what they say?

Subject #107: Yes. They are also the ones that if you do have a violation, you’ll be talking to them.

Researcher: Ok. Anything else you want to add about the training program.

Subject #107: It would be nice if you could have, I want to say play. You learned G core and then we spent a week on track warrants and then about a week on Digicon. I wish we had more time to work with that, because that is what we do at work everyday.

Researcher: The Digicon?

Subject #107: Yes either that or track warrants.

Researcher: So more hands on.

Subject #107: Yes, more hands on. I know you’re on a timeframe so it might be impossible, but it would have been nice.

Researcher: It would be a nice bonus.

Subject #107: It would have been a nice bonus yes. They taught me well enough so when I went in there at least I had an understanding and I got to work with the guys that had it so, hey, I’m getting along. I might not know exactly what I’m doing here, but I know what you’re trying to do.

Researcher: Right.

Subject #107: Then you get people like I said, you’ve got personalities some people know more about one thing than another and hopefully it's good with who your working with.

Researcher: Ok. That sounds good. Anything else you can think of? How about your internship? You do like a nine-week internship don't you after the class work?

Subject #107: You finish the course and you have two or three weeks where you go sit with some dispatchers and your not hired yet, because they still have to interview you. They interview you and if they hire you, then you go on to what they call a road trip and that is kind of like your internship right there, kind of sort of. You kind of go out and ride the trains with some of the maintenance. With mine there was some administrative problems overall so ours was cut short to about two weeks instead of three. So you tried to get as much in as you could. Then you have two weeks of class work where your learning the computer programs, not Digicon. You get to play around with it a little bit and track warrants, but mainly the other stuff with all the record keeping and all the stuff you need to do. One is called the computer assisted dispatching program, which is with the trains and a listing of all the stuff. Then the other computer program where you can pull up all kinds of different information like whats on the train, their schedules, their times and different things like that. After the two weeks of the class is when they officially hire you I think.

Researcher: And the class was with BNSF?

Subject #107: Yes.

Researcher: And you had to go out and ride your territory and that kind of thing?

Subject #107: Yes.

Researcher: Did you do it in a train or high railer or...

Subject #107: I did train, high rail. I went and saw welders. I cut in a section of track and welded it. I went through CTC territory. I went through track warrant ABS. CTC is with the computerized traffic control and that is where you get to play with it and say the train is going to go here, but I want it to cross over here. Track warrants is where you do it by computer, but you have a sheet that you have to fill out by boxes. It depends on, ABS means they have lights like CTC or signals. We are saying this train is far enough ahead and I can have a clear signal to go and I'm getting too close so I'll use the yellows. Then you have what you call dark territory where they don't have any signals at all. That is were your track warrants say this train has from here to here and no one else can get into those limits unless you make them join. You know different rules to do it. That way you don't run trains into each other. So those are the types of things you have to learn.

Researcher: Ok, that makes sense. Anything else?

Subject #107: I just think the gentlemen they have at the school do a real good job.

Researcher: Oh that's good.

Subject #107: They have to. I'm not saying he has to, but he is really personable and he understands. There are just some people, I don't mean to be rude, but there are some people that just couldn't do it. Some people are just not teachers. My sister in law is a coach teacher so I thought about going into that profession, but I don't know if I could handle high school students.

Researcher: I hear ya.

Subject #107: It would have been years ago, but I think he does a fantastic job.

Researcher: That's good.

Subject #107: He can explain it. You get around railroad people and they are in their own environment and they will talk and throw the slangs out and I would be like what did you say? You know, excuse me, but what do you mean by that? He tries, but sometimes he gets caught doing that, but the majority of the times if you have a question just ask him and if we have a question about something he said he will try to explain it. He is pretty good at layman's terms if you want to say.

Researcher: Oh that's good.

Subject #107: And trying to make it fit. He is good at explaining his terminologies or how to do it and if you need extra time, he will help you. He will stay afterwards. He is very intent on everybody being able to be a dispatcher and being as competent as possible to start with, especially since he is part of BNSF. He is very patient and he understands where most people fall into the categories. A little bit after the midterms he said that he knows that it's oozing and it's supposed to. Unless you have a railroad background and dispatching background, it is going to happen. So he knew where we were.

Researcher: So he was able to be encouraging and supportive.

Subject #107: Right and then understood that hey, we are not going to understand how this fits in one spot. He expects us to understand the facts, but he doesn't expect us to understand how the fact fall into place right now.

Researcher: Ok. So he was pretty clear with his expectations?

Subject #107: Yes, but then when we got to the point where he thought it should all be fitting together he let you know, because it was coming toward the end of the semester and it has to come together or your not going to pass it.

Researcher: Right. Right. So it sounds like you had a good instructor then?

Subject #107: Yes we did.

Researcher: Great. How about the support services at the school? Were those pretty descent or didn't you have to use them much?

Subject #107: Not really. It's kind of like it's there if you need some things, but mainly I'm going to say they are almost self reliant on a lot of stuff.

Researcher: Ok.

Subject #107: Because the stuff we learned is not university material. Like I said, you can use it as part of credits toward college. So that is why they are there to add toward your associates if you get a degree or something. If you want to use their library or something like that you can like a regular college student.

Researcher: Ok. Ok. That's good. Anything else you would like to add?

Subject #107: It's a pretty neat program. It was tough. It was demanding. If anyone is going to go through it, don't think they are going to just walk through it. Now the guy that was from the Alaskan railroad even toward the end of it he was saying that he was really having to do some stuff here. The early part of it he was not having to study a whole lot because he had the background, but for anybody coming off the street for which the program is kind of made for be prepared. Like I said, I isn't basket weaving 101!

Researcher: That is probably a good thing considering what your responsibilities are.

Subject #107: Oh you have to be. I don't think they could water it down any to where it would be easier to pass, because the career your going into, granted people are like well the engineer runs the train. Yes, but the engineer doesn't know what is five miles ahead in front of him. If it's something where he needs to be protected, he needs to have the confidence that the dispatcher can protect him.

Researcher: Right. So your responsible for lives.

Subject #107: Right. When maintenance, which is part of the industry they have to work on the tracks, they have to get out there and have protection. You have to protect

them against them big old trains you know those high railers don't match up to the big old diesel locomotives very well. They have to have the confidence that the area that they are working is safe and they don't have to worry about trains unless you notify them of the situation. So yes, they can't water it down because of safety reasons. There is just too much involved.

Researcher: Yes. That would be critical I would think.

Subject #107: Like I said, it is kind of based on working for BNSF, but if you decide to go elsewhere or you come from another railroad they have to have the confidence also that the program is going to teach you to be a good dispatcher for them.

Researcher: Right. They don't want incompetent dispatchers.

Subject #107: No and like I said when you first get in you still have so much to learn even when you get on the floor with the dispatchers.

Researcher: Oh I'm sure.

Subject #107: Now all that stuff you learned and try to throw it into application, there is a lot of learning there.

Researcher: So what you've learned your applying now.

Subject #107: Yes.

Researcher: Wow, I bet that is challenging.

Subject #107: Yes the first few weeks really are, because everything is new and the different scenerios are all new and every time you see something you think how does this fit in or how do you do this here or what do you do here with this. You might know the rule that tells you how to take care of it, but where does that rule fit in when your doing something.

Researcher: So kind of looking at the big picture?

Subject #107: An example would be that a lot of times a train would say, look I have a red block. Your like well I've got your line what's the reason. I don't understand why it won't go or something. What you have to do is to talk him past that, but to do that you have to make sure that there is no other trains or anything else in that area or for some reason why it can't be done from your end.

Researcher: I understand.

Subject #107: If I knew the rules and now I see the application to it, I say oh now I know why I have to block off switch points which is like crossovers and everything so it don't get lined and another train can come through or why you have to protect the next two control points because it's going to jump the track and that's going to cause the lights to do something different. You learned the rule, but now I'm in the process of application and I'm working the desk myself too.

Researcher: It sounds like your having fun with it.

Subject #107: There are days where it's like, now last night wasn't too bad and then there are days where it's like.... oh I'm ready to go. I'm ready to go.

Researcher: I imagine that's true for any job.

Subject #107: I've had enough jobs in my life where it's like the company pays me, I'll take it anyway. There are some days where it's like I'm not getting paid enough for this, but that's anywhere. I've been working since I was 16 and going through high school and college.

Researcher: Good for you.

Subject #107: I was working a part-time job going through this course. If you don't have to, I wouldn't recommend it.

Researcher: So you worked part-time and did the program?

Subject #107: Yes.

Researcher: Wow!

Subject #107: Me and another guy were doing it and if you didn't have to, that's great because it gives you more time to study. I was working weekends at the airport for an airlines just doing baggage and everything. I got the job before I officially went through the interview. To get the course through the Tarrant Co. College here you have to pass a test, two or three different tests I think, it's kind of like a psychological test, an application test and like an aptitude test or whatever. Then there is an interview process that you have to go through and that is before you even get in the course.

Researcher: Ok. So they are pretty selective.

Subject #107: Yes. There are some people that have had to take the test two or three times or gone through the interview a few times before they even got in the course.

Researcher: I guess that probably boils down to the fact that you want to be sure the dispatcher is going to be safe.

Subject #107: Right and it's like any interview. If you have a good interview, you leave the people with a positive attitude of you. If you have a bad interview, they are kind of looking like do we really want this guy? They have so many people and I don't know the numbers or anything like that, but if people have had to wait two semesters to get there and I don't know what their situations are. If you don't go, that means someone else does.

Researcher: Ok, I got you. I got you.

Subject #107: They are pretty picky I'd say.

Researcher: Anything else you would like to add?

Subject #107: Nothing off the top of my head that I can think of.

Researcher: I really really appreciate your time. Thank you very much and your answers are great. You were very helpful so thank you so much. Number 15 was your number.

Subject #107: I'll have to remember that. You might have to remind me.

Researcher: The only person that will know the number and the name is me and once I don't need that connection anymore, it will be destroyed.

Subject #107: Ok.

Researcher: And the tape will be too. The transcript will be around, but nobody will know who the heck #107 is. With my old studies I did, I don't even know who goes with what number. Thank you so much for your time. I know you have limited time with your family.

Interview with Subject #106 (supervisor)

Researcher: This is a dissertation interview with Subject #106. The tape is rolling and the first question is why did you choose to become a dispatcher?

Subject #106: It was just a different career choice. I was laid off from my job and my wife's family was in the railroad; so it forwarded me toward the railroad dispatching class.

Researcher: Ok and you were a graduate of the Tarrant County College Railroad Dispatching Certificate Program correct?

Subject #106: Correct.

Researcher: Why did you select that program?

Subject #106: It was the only one out there that was available actually.

Researcher: Ok. Did it have anything to do with location and how did you find out about the program?

Subject #106: It was definite location and I found out about the class from the Burlington railroad.

Researcher: So you found out directly from the railroad?

Subject #106: Yes.

Researcher: Could you tell me a little about that?

Subject #106: I contacted people at the railroad and they forwarded me to TCJC and they told me the times and dates that they had classes starting. They had tests and interviews and all that to decide who would go and who wouldn't.

Researcher: Ok. When did you graduate from there? When did you finish up?

Subject #106: It would be September of 1999.

Researcher: So you started in September or is that when you finished?

Subject #106: I was finished in January.

Researcher: Ok, so you started in September of 1999. Wow, that was when the program was pretty new.

Subject #106: Yes.

Researcher: Neat. Ok, tell me about being in the dispatching program. What was it like?

Subject #106: It was pretty much like college. There was a lot of interaction in class and a lot of hands on. The teaching was very quick and rapid. There was lots of homework. I pretty much spent the first month lost in class, not knowing anything and then it all just clicks at once. Its just like a college class, but the teaching I thought was excellent. The subject and the way they prepared you for the position of a dispatcher was excellent.

Researcher: What about it was excellent?

Subject #106: Just the course itself as far as them making you ready to be a dispatcher. The way they gave you the skills to be a dispatcher. Basically, going through everything in depth and being able to answer questions. The teachers would stay after class if you had questions and things like that.

Researcher: So a lot of individual attention was given to the students.

Subject #106: Yes. It was like one on twelve I believe.

Researcher: Oh wow, that sounds pretty good.

Subject #106: Yes.

Researcher: How about you and your classmates? Did you all get along? Did you have to work together or how did that work?

Subject #106: Yes. There were a lot of group activities. They split you into two, three and sometimes four groups at a time. Sometimes there were just two partners together and a lot of what you would do if this happened. A lot of group activity as far as putting you into a computer based training and your partner giving you situations. You had to figure out how to deal with them.

Researcher: Ok. So lots of group activity it sounds like.

Subject #106: Yes. Definitely lots of group activity. Like I said, sometimes it was half of the room split up and other times it was two on two or something like that.

Researcher: During these group activities and what not, what did the instructor do? How involved was the instructor?

Subject #106: The instructor would normally give the instructions and then sit back and observe us. If there was something that was going wrong, they would step in. A lot times it would be the instructor giving a situation and each group would try to come up with an answer or conclusion to the problem.

Researcher: And then you would come together in the end and work it out?

Subject #106: Correct.

Researcher: Ok.

Subject #106: We would discuss pros and cons and what went wrong and how everybody did everything.

Researcher: That sounds pretty effective.

Subject #106: Yes. It worked out real well and there was a lot of computer based training in the classroom also to where they could actually have a simulation of dispatching on there and we would split up into groups and figure out the same thing. How to achieve the goal. How to get from A to B without killing people.

Researcher: So safety is really important then?

Subject #106: Yes. Safety is number one.

Researcher: This was emphasized in the class?

Subject #106: Oh yes, definitely.

Researcher: Great. That is good to hear.

Subject #106: It was the number one question on every test.

Researcher: Oh really! That's interesting. So safety was the number one question on every test.

Subject #106: Just about, yes. It was really important.

Researcher: Could you tell me about the most valuable or one of the most valuable lessons you learned while you were in the program?

Subject #106: Probably safety as far as not coming from a railroad background at all and learning how important safety is. Also the mobility of trains, how big they are and what it takes to stop one. Just learning basic safety rules that you would have never thought about being just a regular person in society.

Researcher: Right. So that was probably the most valuable lesson then?

Subject #106: Oh yes. You look at those crossings twice every time you come up to one.

Researcher: Oh good. I certainly do.

Subject #106: It's just something the everyday public doesn't think about and how many people die each year and how many accidents there are each year. You just don't think about those things.

Researcher: Do you feel the program adequately prepared you to be a dispatcher?

Subject #106: Very much so. Yes.

Researcher: Could you expand a little bit on that for me? Please?

Subject #106: Well, it gave you the skills to be a dispatcher. It made you think in ways that you have never thought of before. Looking at alternate routes, looking at safety, looking at human life, organizational skills, how to keep up with different things. Each railroad does have different computer programs, but it's just a matter of who you work for. As far as just learning how to keep up with the trains and how to communicate with the crew members on the train and again your goal is number one safety, keeping everyone safe. They definitely prepared you for that.

Researcher: That's good.

Subject #106: What would you keep and what would you change in terms of topics studied in the program?

Subject #106: Oh boy. I can't think of anything in the course that you could get rid of, because it is all so pertinent to be able to do the job. As far as adding anything? Boy, it was pretty in depth as it was.

Researcher: Pretty intense?

Subject #106: It was very intense. It was months of vigorous training. I couldn't say more hands on or book work that's for sure. We had plenty of that. If I had to add anything, maybe it would be just maybe the workforce as far as helping you find a job afterwards.

Researcher: Ok.

Subject #106: Because Burlington did hire most of them, but the ones that they don't take are kind of on their own. Maybe the other end of it trying to find a job.

Researcher: Now you're working for BNSF?

Subject #106: Correct. I didn't at first though. They ended up just hiring a few people out of our class and then the rest of us were ready to fend for ourselves.

Researcher: Wow. Did you work for a different railroad, if you don't mind me asking?

Subject #106: Yes. I worked for Kansas City Southern railroad in Shreveport, Louisiana. I worked for KCS for little over a year.

Researcher: Ok. And then you got a job at BNSF and you're in Spring?

Subject #106: That's correct.

Researcher: Ok. That's a smaller office isn't it?

Subject #106: Yes, there are maybe 30 dispatchers down here.

Researcher: Ok. Do you mind if I ask you what territories your in charge of?

Subject #106: Actually everything. I work the Assistant Chiefs job, in charge of all the dispatchers and I also dispatch trains other days of the week, every single desk. I work from New Orleans, LA to Shreveport to Houston to Teague and to Alvin, pretty much the whole gulf division. We run every desk there is all the way to Teague and Houston and Temple and Summerville.

Researcher: Oh my goodness.

Subject #106: Yes. I work every job in the office.

Researcher: Do you supervise people who have graduated from this program?

Subject #106: Correct. I have in the past. Yes.

Researcher: Ok, I'm going to have a series of questions to ask you on that too if you don't mind.

Subject #106: Ok.

Researcher: The last one that I have for the moment is would you recommend the program and to whom if you would?

Subject #106: I would definitely recommend the program especially for any ex-military personnel. They seem to really like the military personnel.

Researcher: Ok.

Subject #106: People with technical degrees and they understand the computer-based training. Like myself, I came off the street and I worked for the Nabisco Company for 12 years as a regional sales manager and was laid off.

Researcher: Oh, I'm sorry.

Subject #106: I completely came from the other spectrum and actually there are not too many of us that come straight off the street. They either have a military background or a railroad background from maintenance away.

Researcher: A lot of people come from maintenance away?

Subject #106: Correct. Craft transfers and things like that.

Researcher: Ok. Why do you think that is?

Subject #106: A lot of them get the field training from working on the track and they decide that they want to get out of the heat and out of the cold and go through the dispatching class as a class transfer.

Researcher: Ok.

Subject #106: We have a couple of those in our office now.

Researcher: Oh, neat.

Subject #106: In fact some of them have been conductors and engineers also.

Researcher: Oh my goodness. That's really neat.

Researcher: This is the second part of the interview. #106 also supervises people that have graduated from the dispatching program. The first question is how did the Railroad Dispatcher Certificate Program graduates perform on the job, both soon after graduating and then after gaining experience?

Subject #106: The people in the past that I have supervised that have come through the class have been as knowledgeable as I was coming out of the class. The ones that come from maintenance away and from the field as far as conductors and engineers seem to grasp it a little faster, because they are already rules qualified. They seem to catch on a whole lot quicker than the people who have come off the street like myself.

Researcher: Ok.

Subject #106: As far as rules and kind of knowing the basic operation. Like I said, they have been either on the track or on the train. They have a whole lot better perspective on what's going on on the ground than I do.

Researcher: Because they've been out there?

Subject #106: Yes, because they have been out there. Even today I learn more everyday training these people and talking with these people as far as what's going on the ground.

Researcher: So the graduates that have come out of the program that you supervise, can you tell me approximately how many you have supervised?

Subject #106: I can think of at least three of them that have come out of the class that are all doing excellent as dispatchers. They have all been class transfers.

Researcher: Ok.

Subject #106: Two have been conductors and one was an engineer and actually one has come from maintenance away. They are all doing excellent.

Researcher: Now do you have any that have come off the street and have come to you?

Subject #106: No. I don't think I have had any that have come off the street. They have all been class transfer classes. They seem to have a bunch more of those class transfer classes than they do just off the streets.

Researcher: It sounds like that just from the information that I have gathered too.

Subject #106: Yes, It does seem like they do that more.

Researcher: Now I understand that there are dispatchers who work there that did not attend the program. How would you compare the graduates of the program with dispatchers who did not attend the program?

Subject #106: The dispatchers who have been there for a long time that did not go through the class, I think are just as prepared as the ones that came through the class. I think the class definitely prepares you for the career. The ones that have been doing it for 20 years have obviously been doing an excellent job. I think the class prepares you to do the job. The only thing that is any more is the computer base. A lot of it is hands on training and once they come out of the class and sit with us on each specific desk they are different. They have to adapt to each desk, because each desk has a different computer based on it. A different program.

Researcher: So basically would it be fair to say that you feel that people coming out of the program and people who have been there for a while are equally capable. It's just that the people out of the program don't have the experience yet?

Subject #106: Correct. You gain your experience by working the job.

Researcher: So that's very valuable then.

Subject #106: Yes. They will put you in the chair and we train each dispatcher. Each one is a little different. Some catch on a little quicker and like you say the ones that come out of class transfers catch on quicker and its all a matter of learning each desk one day at a time.

Researcher: Thank you. One last question, do you have any ideas about how, and we have kind of addressed this, but about how the program can better train the dispatchers?

Subject #106: No, I really can't think of anything. Like I say, they give you all the tools to do the job and all the educational background and all the rules and everything else. Its all a matter of getting out there and a lot of people even in my class are not there today. Its not that they weren't rules ready and they weren't qualified to do the job, it's just that they didn't like the hours. And a lot of times you don't figure that out until you get out of the class.

Researcher: So that is something that maybe people should do a little more research on?

Subject #106: Yes. We had a lot of people come through the class that stayed on the extra board a little while, which means 24/7; you know when they need you.

Researcher: Right.

Subject #106: A lot of people once they get a job and they start working 3 to 11 or whatever, they don't realize the kind of impact that has everyday. Working a specific shift everyday.

Interview complete.

Glossary

Block: A section of railroad track that is isolated from adjacent track, usually through an insulation spacer placed at both ends of the track block. The isolation is for the purpose of using the track block for signaling (Honeywell, 2002).

Block Signal: A fixed signal at the entrance of a block to govern trains and engines entering and using that block (NCMR, 2002).

Branch Line: Secondary track of a railroad. Often serves an industry, such as a grain facility or industrial park. A branch line is not the main line of the railroad.

Centralized Traffic Control (CTC): A remotely controlled block signal system under which train movements are authorized by block signals whose indicators supersede the superiority of trains (NCMR, 2002).

Class 1 Railroad: A railroad with annual revenues in excess of a figure set by the Interstate Commerce Commission, adjusted annually for inflation (H&R Trains, 2002). The class designations are set by the Surface Transportation Board (American Short Line and Regional Railroad Association, 2002). BNSF is an example of a Class 1 Railroad (www.bnsf.com).

Conductor: Freight railroad conductors are key members of a train crew and are responsible for the safe, over-the-road operation of freight trains (Cincinnati State Corporate & Community Services, 2002).

Crew: (1) the conductor, engineer and any other person who is actually on the train and responsible for operating the locomotive and/or for the train itself, (2) MofW employees who are working together on a track.

Dark Territory: A series of rail miles ungoverned by signals and unable to transmit or receive radio or cellular phone signals (NCMR, 2002).

Dispatcher: railroad employee who is responsible for the safe and efficient movement of trains and equipment over a specific section of the railroad's track.

Engineer: railroad employee who is responsible for operating the locomotive.

Main Line: the major track used by the railroad for most of its traffic. Main lines can be single tracked (one), double tracked (two), triple tracked, etc.

Maintenance of Way (MofW): railroad employees who keep the track repaired and in running condition. Sometimes MofW can refer to the equipment used to repair, condition, and build track.

Regional Railroad: a medium sized railroad. Also called a Class 2 Railroad (Surface Transportation Board designation based on annual earnings, see Class 1 Railroad above) (American Short Line and Regional Railroad Association, 2002). The New York, Susquehanna and Western is a Regional Railroad (<http://www.nysw.com/>).

Siding: A track auxiliary to the main track for meeting or passing trains. The timetable will indicate stations at which sidings are located (NCMR, 2002).

Signal: Visual indication passed to a train driver to advise the speed, direction or route of the train. There are almost as many types of signals as there are railways but they fall into the following main categories:

- handsignals - used mainly where there are no fixed signals or where the fixed signaling has failed. Generally, each railway has its own defined handsignals recognized by its operators.
 - semaphore signals - a fixed lineside signal where the stop indication is displayed as a horizontally positioned arm and proceed as a 45° or vertical arm.
 - colour light signal - a fixed lineside signal showing light indications to drivers.
 - cab signals - where the indications are displayed in the driver's cab
- (Railroad Technical Web Pages, 2002).

Short Line: a small railroad. Also called a Class 3 Railroad (Surface Transportation Board designation based on annual earnings, see Class 1 Railroad above) (American Short Line and Regional Railroad Association, 2002). The Brownsville & Rio Grande International is a short line railroad (<http://www.brgrr.com/frame.htm>).

Subdivision: A specified section of a railroad. For example, the Union Pacific line that goes from Austin, TX to Laredo, TX is called the Laredo Subdivision.

Territory: A dispatcher's territory is the part of the railroad's track for which the dispatcher is responsible.

Track Warrant Control (TWC): A method of authorizing movements of trains or engines or protecting men or machines on a main track within specified limits in territory designated by special instructions or general order (NCMR, 2002).

T&E Service: trains and engines service. Refers to someone who works with the trains and the locomotives, such as a conductor or engineer.

Note: For a complete listing of railroad related terms and jargon, please consult the following publication BNSF (1997), which is listed in the Bibliography.

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Vita

Beth Ann Krueger was born in Albuquerque, New Mexico, on July 4, 1966, the daughter of Dr. George C. Krueger and Ann D. Krueger of Cambridge, Maine. She graduated from the University of Tampa in Tampa, Florida, in 1988 with a B.S. in Biology, and from the University of Rochester in Rochester, New York, in 1993, with a M.S. in Toxicology.

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